

# EXHIBIT A

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

1 IN THE UNITED STATES DISTRICT COURT  
2 SOUTHERN DISTRICT OF NEW YORK

3 -----x  
4 SECURITIES AND EXCHANGE COMMISSION,

5 Plaintiff, Case No.  
6 20-civ-10832(AT) (SN)

7 vs.

8 RIPPLE LABS, INC., BRADLEY GARLINGHOUSE,  
9 and CHRISTIAN LARSEN,

10 Defendants.  
11 -----x

12 \*\* CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER \*\*  
13  
14

15 VIDEOTAPED DEPOSITION OF  
16 DAVID SCHWARTZ  
17

18 919 Third Avenue  
19 New York, New York  
20

21 May 26, 2021  
22 9:17 a.m.  
23

24 Reported b:  
25 Cheryll Kerr, CSR  
JOB No. 210526CK

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

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7 vs.

8 RIPPLE LABS, INC., BRADLEY GARLINGHOUSE,  
9 and CHRISTIAN LARSEN,

10 Defendants.  
11 -----x

12 \*\* CONFIDENTIAL PURSUANT TO PROTECTIVE ORDER \*\*  
13

14 VIDEOTAPED DEPOSITION OF DAVID SCHWARTZ, held  
15 at the offices of Debevoise & Plimpton, LLP, located  
16 at 919 Third Avenue, New York, New York, before  
17 Cheryll Kerr, CSR, a Certified Shorthand Reporter  
18 and notary public, on Wednesday, May 26th, 2021,  
19 at 9:17 a.m.  
20  
21  
22  
23  
24  
25

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

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25 (Continued on the next page)

**CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER**

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17 Nicole Forbes, SEC (via Zoom)  
Kyle Chernak, Debevoise & Plimpton (via Zoom)  
18 Scott Caravello, Debevoise & Plimpton (via Zoom)  
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19 Alex King, Kellogg, Hansen et al., LLP (via Zoom)

20 \*\*\* \*\*

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18		David Schwartz et al.	
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20		"I am David Schwartz,	
21		Chief Cryptographer at	
22		Ripple. AMA!"	
23			
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1	EXHIBITS (Cont.)		
2	DS		
3	FOR ID	DESCRIPTION	PAGE
4	Exhibit		
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11		don't use XRP coins for their	
12		transactions, how can the XRP	
13		price go high even if the	
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19		waiting for you" submitted	
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22		"Issuing Gateway vs. Private	
23		Exchange - Gateways and	
24		Exchanges - Xrp Chat"	
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1	EXHIBITS (Cont.)		
2	DS		
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5		dated 3/31/2020 from David	
6		Schwartz to Brad Garlinghouse	
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12		"David "JoelKatz" Schwartz	
13		(u/sjoelkatz) - Reddit"	
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16		Opencoin Features Overview"	
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20	Exhibit 76	Four-page Twitter printout	201
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22		Schwartz on Twitter" dated	
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2	DS		
3	FOR ID	DESCRIPTION	PAGE
4	Exhibit 77	Document entitled "Technical FAQ -	161
5		XRPL.org"	
6	Exhibit 80	Two-page e-mail chain with	375
7		top e-mail dated 6/20/18	
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10	Exhibit 83	31-page document entitled "Master	404
11		Press Q&A"	
12	Exhibit 84	10-page entitled "Make XRP Great"	404
13		***	***
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09:17 1 THE VIDEOGRAPHER: Okay. This is the  
2 videotaped deposition of David Schwartz,  
3 deponent, in the matter of SEC vs. Christian  
4 A. Larsen, defendants. Case number is  
09:17 5 20-civ-10832 and this deposition is being held  
6 at Debevoise & Plimpton, at 919 Third Avenue,  
7 New York, New York.

8 Today's date is Wednesday, May 26th, 2021  
9 and the time is approximately 9:17 a.m. My  
09:17 10 name is David Shereck, certified videographer  
11 with Gradillas Court Reporters, located at 400  
12 North Brand Boulevard in Glendale, California.

13 All appearances will be noted on the  
14 stenographic record, and the court reporter  
09:17 15 today is Cheryll Kerr, also with Gradillas,  
16 and will you please swear in the deponent?

17 D A V I D S C H W A R T Z,  
18 called as a witness, having been duly  
19 sworn, was examined and testified  
09:17 20 as follows:

21

22

DIRECT EXAMINATION

23

BY MR. TENREIRO:

24

09:17 25 (Continued on the next page)

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09:17 1 (Thereupon, the following exhibits were  
2 premarked for identification: DS Exhibit 2, 3,  
3 5, 6, 7, 9, 11, 13, 14, 15, 18, 19, 20, 21, 22,  
4 25, 27, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40,  
09:17 5 42, 44, 46, 47, 48, 52, 57, 58, 59, 60, 61, 63,  
6 64, 66, 68, 69, 70, 71, 75, 76, 77, 80, 83, and  
7 84.)

8 BY MR. TENREIRO:

9 Q. Please state your name for the record.

09:17 10 A. David Schwartz.

11 Q. Mr. Schwartz, are you represented by counsel?

12 A. I am.

13 Q. Who is your counsel?

14 A. Debevoise.

09:17 15 Q. Okay. My name is Jorge Tenreiro. I'll be  
16 asking questions today on behalf of SEC.

17 With me are my colleagues Daphna Waxman, Jon  
18 Daniels, and other SEC staff members on the phone.

19 Mr. Schwartz, other than SEC testimony in this  
09:17 20 case, have you ever given testimony under oath before?

21 A. I have been deposed before.

22 Q. In connection with what matter?

23 A. Well, previously with this matter, and once  
24 with an IRS matter involving a former employer of mine.

09:18 25 MR. CERESNEY: Mr. Tenreiro, just before

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09:18 1 we proceed any further, just two stipulations  
2 on the record.

3 One is that any objection by defense  
4 counsel will be imputed to the other  
09:18 5 departments, so defendants Garlinghouse and  
6 Larsen --

7 (Thereupon, an informal discussion was  
8 held off the record with the shorthand  
9 reporter.)

09:18 10 MR. CERESNEY: Any objection by one party  
11 will be an objection by all parties. That's  
12 one stipulation.

13 The other stipulation is that this  
14 transcript will be marked confidential under  
09:18 15 the protective order in this case. That's it.

16 (Thereupon, an informal discussion was  
17 held off the record.)

18 THE VIDEOGRAPHER: Off the record at 9:18  
19 a.m.

09:18 20 (Recess taken at 9:18 a.m.)

21 (Resumed at 9:24 a.m.)

22 THE VIDEOGRAPHER: Back on the record at  
23 9:24.

24 BY MR. TENREIRO:  
25

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09:24 1 Q. Thank you. So, Mr. Schwartz, it sounds like  
2 you've -- you know, you've given testimony or deposition  
3 under oath. Just briefly, to remind you, it's important  
4 that we don't talk over each other. If you wait for me  
09:24 5 to complete my question before answering in order to  
6 create a clear record, I'll try to do the same. Please  
7 give verbal answers rather than shaking your head or  
8 nodding, and don't tell me the substance of any advice  
9 that your lawyers have given you throughout the course  
09:24 10 of today's deposition.

11 I'll start by asking you if there's any reason why  
12 you cannot testify truthfully or accurately today.

13 A. There is not.

14 Q. Okay. Mr. Schwartz, are you employed?

09:24 15 A. Yes.

16 Q. And where?

17 A. I am employed by Ripple.

18 Q. Since when?

19 A. Well, I started work on what eventually  
09:24 20 became the company Ripple in November of 2011, and I was  
21 employed by the company since it was formed.

22 Q. And what is your title today?

23 A. My entitled today is chief technology  
24 officer.

09:24 25 Q. When did you get that title?

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09:24 1 A. I believe it was sometime in 2018. I'm not  
2 exactly sure.

3 Q. Who do you report to today?

4 A. I report to Brad Garlinghouse.

09:25 5 Q. Before 2018, did you report to -- did your  
6 reporting structure change when your title changed?

7 A. It did. Prior to that, I reported to Chris  
8 Larsen.

9 Q. Did you report to Mr. Larsen even when he was  
09:25 10 no longer CEO of the company?

11 A. Yes.

12 Q. Okay. Why did you report to him?

13 A. A small number of employees, including  
14 myself, remained in sort of the previous reporting  
09:25 15 structure still reporting to Chris Larsen.

16 Q. Who else remained reporting to Mr. Larsen?

17 A. I know his executive assistant did, and I  
18 believe [REDACTED] did.

19 (Thereupon, an informal discussion was  
09:25 20 held off the record with the shorthand  
21 reporter.)

22 THE WITNESS: [REDACTED] his  
23 executive assistant, and [REDACTED],

24 [REDACTED] Sorry. I sometimes forget.

09:25 25 THE SHORTHAND REPORTER: It's okay.

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09:25 1 BY MR. TENREIRO:

2 Q. No problem. Why did your reporting structure  
3 change sometime in 2018?

4 (Pause.)

09:26 5 THE WITNESS: Chris Larsen had been  
6 reducing his day-to-day responsibilities with  
7 the company over a period of time, and this  
8 was just sort of a step in that process.

9 BY MR. TENREIRO:

09:26 10 Q. Okay. Does anyone report to you currently?

11 A. No.

12 Q. How is it you came to work for the company or  
13 the project that became Ripple in November of 2011?

14 A. [REDACTED] had the original idea for what  
09:26 15 eventually became the company, and he found me online.

16 Q. Where online?

17 A. I believe he was familiar with -- with who I  
18 was and what I was doing at the time through my posts on  
19 a Bitcoin forum, and then he posted a job offer on, um,  
09:27 20 I think it was stack exchange careers, which was like an  
21 experimental -- an experimental website at the time.

22 But -- and I think he had someone point me to it,  
23 posted that job offer so I would specifically see it.

24 Q. And what did you work or what can do you  
09:27 25 before you started working on this project in November

21

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09:27 1 of 2011?

2 A. Prior to that, I worked for a software  
3 company in San Jose called [REDACTED].

4 Q. What were you doing for them?

09:27 5 A. I was in charge of software development.

6 Q. Okay. Can you briefly describe your  
7 educational background post-high school?

8 A. I studied electrical engineering at the  
9 University of Houston.

09:27 10 Q. Anything else?

11 A. No.

12 Q. Okay, and what is your role at Ripple today?  
13 What are your responsibilities?

14 A. Today, I -- I have -- I am responsible for  
09:27 15 the security of the company's XRP holdings, and  
16 generally the direction of development, strategic  
17 direction, those kinds of things.

18 Q. What do you mean by "the security of the  
19 company's XRP holdings"?

09:28 20 MR. TENREIRO: Actually, strike that.

21 BY MR. TENREIRO:

22 Q. Just for the record, what is XRP?

23 A. A digital asset that trades on the  
24 decentralized public ledger.

09:28 25 Q. And what do you refer -- what do you refer to

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09:28 1 that ledger as?

2 A. The XRP Ledger.

3 Q. Okay. Just so that we can use the same  
4 language, what do you mean by you are "responsible for  
09:28 5 the security of the company's XRP holdings"?

6 A. Digital assets like XRP can be stolen or  
7 compromised in various ways, and one of my  
8 responsibilities is to make sure that that does not  
9 happen to the company's XRP holdings.

09:28 10 Q. How much -- what are the company's XRP  
11 holdings today?

12 A. I would have to check to give you the exact  
13 number, but roughly 50 billion XRP.

14 Q. Okay. Has that number changed over time?

09:28 15 A. It has decreased over time.

16 Q. Okay. We'll get back to that. So who -- who  
17 wrote the code for what became the public version of the  
18 XRP Ledger?

19 A. Several hundred people.

09:29 20 Q. What was your role in that?

21 A. I was probably one of the two major  
22 developers in the early days, then gradually reducing  
23 over time.

24 Q. In the very early days, 2011/2012 time  
09:29 25 period?

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09:29 1 A. Yes.

2 Q. Okay. At that point, who was writing code?  
3 Was it several hundred people back then?

4 A. No.

09:29 5 Q. Okay, so who was writing back then?

6 A. The two primary developers were myself and  
7 Arthur Britto.

8 Q. Did you copyright the code?

9 A. It's automatically copyrighted as soon as we  
09:29 10 create it.

11 (Thereupon, an informal discussion was  
12 held off the record with the shorthand  
13 reporter.)

14 THE WITNESS: It's automatically  
09:29 15 protected by copyright as soon as we write it.

16 BY MR. TENREIRO:

17 Q. What do you mean, "automatically protected by  
18 copyright?

19 A. My understanding of the way copyright in the  
09:30 20 United States is that nothing specific needs to be done  
21 for a work to be copyrighted.

22 Q. Okay, and where did you derive that  
23 understanding, without discussing the advice of counsel,  
24 if you can answer that?

09:30 25 A. Just various intellectual property issues

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09:30 1 that I've been involved with throughout my entire  
2 career.

3 Q. Okay. When was the XRP Ledger deployed to  
4 the public?

09:30 5 A. I would have to -- I would have to check the  
6 exact dates, but I think it was either late 2012 or  
7 early 2013.

8 Q. Okay, and did XRP -- was XRP in the genesis  
9 block for the ledger?

09:30 10 A. Yes.

11 Q. Okay, and when was XRP created?

12 A. It's not really possible to answer that  
13 question.

14 Q. Why is that?

09:31 15 A. Because the term XRP is not sufficiently  
16 precisely defined to allow you to draw a bright line.

17 Q. What would you need to define it in order to  
18 draw a bright line?

19 A. Some precise definition that was -- that will  
09:31 20 enable you to say that on a particular date, what  
21 existed was or was not XRP.

22 Q. Let me ask you this:

23 Is it fair to say that at some point, Mr. Britto  
24 wrote code that would define how the initial

09:31 25 distribution of XRP would occur?

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09:31 1 A. Yes, yes.

2 Q. Okay, and what would --

3 What did that code provide in terms of the  
4 distribution?

09:31 5 A. That code placed 100 billion units, each  
6 divisible into one million subunits, into the genesis  
7 block.

8 Q. Okay, and is it fair to say the ledger that  
9 you were working on as reset a number of times before it  
09:31 10 was deployed publicly?

11 A. Yes.

12 Q. And each time it was reset, what --

13 Would that be a sort of -- new genesis block each  
14 time it was reset?

09:32 15 A. Yes.

16 Q. Okay, and so there was a sort of new  
17 iteration of XRP each time there was a reset?

18 A. I -- I hesitate to adopt that terminology,  
19 again, because the term "XRP" --

09:32 20 It's a term that has a precise meaning today, but  
21 it -- it can't necessarily draw that meaning back in  
22 time.

23 Q. Okay. Fair enough.

24 (Pause.)

09:32 25 BY MR. TENREIRO:

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09:32 1 Q. Who decided to deploy the XRP Ledger  
2 publicly?

3 MR. GERTZMAN: Objection to the form.

4 (Thereupon, an informal discussion was  
09:32 5 held off the record.)

6 BY MR. TENREIRO:

7 Q. Go ahead.

8 A. That was something that we had always planned  
9 to do from the very, very beginning.

09:32 10 Q. At what point did Mr. Larsen get involved  
11 with that project?

12 A. [REDACTED] brought Chris Larsen in to be  
13 CEO. I couldn't place the time period exactly for you,  
14 but prior to the formation of the company.

09:33 15 Q. Was the company formed prior to the public  
16 launch of the ledger?

17 A. I'm not sure.

18 Q. Okay. Did Mr. Larsen have any role in  
19 deciding to publicly launch the ledger?

09:33 20 A. He was CEO at the time and he was present at  
21 conversations about the timing, but I -- I couldn't tell  
22 you how much inputs he provided.

23 Q. Briefly, so that we're -- you know, I'm  
24 trying to get on the same page, which is the XRP Ledger.  
09:33 25 You already said something, but could you expand a

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09:33 1 little bit?

2 A. Sure. The XRP Ledger is a public,  
3 decentralized -- it is technically a blockchain that  
4 stores and processes transactions to move XRP and other  
09:34 5 digital assets.

6 Q. You say, "technically a blockchain." Why did  
7 you say, "technically a blockchain"?

8 A. The term "blockchain" has evolved over time,  
9 but as I understand the meaning of the term  
09:34 10 "blockchain," it meets the criteria to be considered a  
11 blockchain.

12 Q. What do you understand the meaning of the  
13 term "blockchain" to be?

14 A. I understand the meaning of the term  
09:34 15 "blockchain" to be literally a chain of blocks, and by  
16 "blocks," I mean chunks of information that contain  
17 transactions.

18 And by "chain," I mean each block, except the first  
19 one has a cryptographically secure reference to the  
09:34 20 prior block.

21 Q. And does the XRP Ledger --

22 Is the XRP Ledger a chain of blocks or is it a  
23 chain of ledgers?

24 A. You could --

09:34 25 You could use either terminology. The way I use

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09:34 1 the terms, a ledger is a block with some additional  
2 information in it.

3 Q. And does every block in the XRP Ledger or  
4 every ledger, as whatever term we're using, have a  
09:34 5 cryptographically secure reference to the prior block?

6 A. Yes. Except the first, obviously.

7 Q. Except the first? Now, is it also fair to  
8 say that -- let's talk about blockchains generally.

9 A distributed blockchain is -- is run over several  
09:35 10 computers, a network of computers?

11 A. Yes.

12 MR. CERESNEY: Objection to form.

13 BY MR. TENREIRO:

14 Q. Is that also true for the XRP blockchain?

09:35 15 A. Yes.

16 Q. Sorry. XRP Ledger. Apologies.

17 Now, when the XRP Ledger was publicly launched, how  
18 many nodes was the computer running -- was -- was the  
19 network running on?

09:35 20 A. I know at that time, there were three  
21 validators, but I couldn't tell you how many -- other  
22 nodes. Let me rephrase a little more precisely.

23 There were three validators that were on what we  
24 would call UNL. There may have been other validators  
09:35 25 running or other servers. I couldn't tell you for sure.

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09:35 1 Q. Let's take it one step at a time. What is a  
2 validator in the context of the XRP Ledger?

3 A. In the context of the XRP Ledger, a validator  
4 is a node that coordinates with other nodes in the  
09:36 5 consensus process.

6 Q. And the consensus process achieves what  
7 purpose?

8 A. The purpose of the consensus process is to  
9 break ties in the ledger.

09:36 10 Q. Is one of the purposes to --  
11 Well, is one of the purposes of the validators to  
12 permit the ledger to continue moving forward?

13 MR. CERESNEY: Objecting to form. You  
14 can answer.

09:36 15 THE WITNESS: One of the purposes of the  
16 validators is to ensure a consistent view of  
17 the ledger as it moves forward.

18 Otherwise, there could be equally good  
19 ways the ledger could make forward progress.

09:36 20 (Thereupon, an informal discussion was  
21 held off the record with the shorthand  
22 reporter.)

23 BY MR. TENREIRO:

24 Q. So do the validators help the ledger make  
09:36 25 forward progress?

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09:37 1 A. They ensure there's a -- that it's possible  
2 to have a single view on how the ledger makes forward  
3 progress. It would make forward progress without them.

4 Q. How would it make forward progress without  
09:37 5 them?

6 A. The way the software is designed, it's -- we  
7 describe it as opportunistic. That is, it makes forward  
8 progress unless it is impossible to make forward  
9 progress, which it basically never is. The -- yeah, I  
09:37 10 think I'll stop there.

11 Q. Well, without the validators ordering  
12 transactions, would there be double spin?

13 A. What could happen is there could be  
14 disagreement over -- over which ledger people wanted to  
09:37 15 honor.

16 Q. So fork, in other words?

17 A. Yes, an unintentional fork.

18 Q. Has there ever been a fork on the company  
19 ledger since inception?

09:37 20 A. There are forks of the type that you were  
21 just talking about all the time. I guess you would call  
22 them minor or small forks.

23 But if the network is operating normally, they  
24 don't cause any -- they don't cause any problem. They  
09:38 25 last -- you know, a couple of seconds.

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09:38 1 Q. So just to make sure I understand the insert,  
2 have there ever been any forks on the XRP Ledger since  
3 inception, other than minor forks that have not lasted  
4 more than a few seconds?

09:38 5 MR. CERESNEY: Objection to form.

6 THE WITNESS: Right. Other than those  
7 minor things that are technically forks that  
8 don't cause -- they're completely harmless and  
9 you wouldn't even notice unless there were  
09:38 10 specific -- there has not been a harmful  
11 fork -- to my knowledge, at least -- since the  
12 inception.

13 (Thereupon, an informal discussion was  
14 held off the record with the shorthand  
09:38 15 reporter.)

16 BY MR. TENREIRO:

17 Q. When was the last time the XRP Ledger was  
18 reset?

19 A. I believe it was early -- late 2012, but I'm  
09:39 20 not exactly sure.

21 Q. Was it around the time it was publicly  
22 deployed?

23 A. I think it was within a couple months. I'm  
24 not sure.

09:39 25 Q. And the 32,000 or so blocks that were lost

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09:39 1 originally -- when was that, approximately?

2 MR. CERESNEY: Objection.

3 BY MR. TENREIRO:

4 Q. Were there -- has the XRP Ledger --

09:39 5 Are some of the original blocks or ledgers -- were  
6 they lost?

7 A. Yes.

8 Q. Okay, and when was that, just in time?  
9 Before or after the public launch?

09:39 10 A. I think it was after, but I'm not certain.

11 Q. Okay. Does it affect the functioning of the  
12 ledger today in any way?

13 A. No.

14 Q. Why not?

09:39 15 A. The XRP Ledger is designed -- it doesn't  
16 require you to have history in order to operate.

17 Q. Every new ledger -- every closed ledger has  
18 all of the information, in other words?

19 A. Correct.

09:40 20 MR. GERTZMAN: Objection to form.

21 BY MR. TENREIRO:

22 Q. Okay. So is it fair to say that your  
23 recollection is that when the ledger was launched, there  
24 were three validators that were engaged in the consensus  
09:40 25 process?

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09:40 1 A. Yes.

2 Q. And who operated or ran those validators back  
3 then?

4 A. My recollection is that until the incident  
09:40 5 with the lost ledgers, [REDACTED] ran them exclusively.

6 Q. From his home?

7 A. Well, he operated them for wherever they  
8 were. The validators themselves -- I believe they were  
9 running on an Amazon infrastructure.

09:40 10 Q. And the loss of some of the -- the loss of  
11 some of the blocks caused a change in that, I guess? Is  
12 that what you're saying?

13 A. Yes.

14 Q. And what happened after that?

09:40 15 A. After the incident with the lost blocks -- at  
16 first, we didn't know --

17 We didn't know what had happened, so [REDACTED] asked me  
18 to investigate, and in order to do that, I needed access  
19 to those validators.

09:41 20 Prior to that, I didn't have any role. I'm not  
21 even positive I knew that there were three. I might  
22 have. I might not have. At that point, it became  
23 important that I look at the infrastructure.

24 Q. What had happened, just briefly?

09:41 25 A. All -- all three of the validators that Jed

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09:41 1 was running at the time were built -- were built  
2 substantially the same way. They were on the same  
3 infrastructure and they all ran out of disk space at  
4 roughly the same time of the.

09:41 5 The software, at that point, didn't have any  
6 safeties to handle that in the same way, so there was a  
7 data -- relationships between data was lost.

8 Q. Does the software have safeties to handle  
9 that today?

09:41 10 A. Yes.

11 Q. Who programmed that into the software?

12 A. I believe either myself or [REDACTED] did  
13 so immediately after that incident.

14 Q. What language is the software program in?

09:42 15 A. C++.

16 Q. What was the function of XRP at the time that  
17 the ledger was launched publicly?

18 A. At that time the time, the primary function  
19 of XRP was to sort of fund transactions pay for  
09:42 20 transactions and prevent spam.

21 Q. So -- and how much did the transactions cost  
22 at that time, approximately?

23 A. I don't remember exactly.

24 But it would have been much less than one XRP,  
09:42 25 probably on the order of magnitude like a thousandth of

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09:42 1 an XRP, possibly less. I don't exactly recall.

2 MR. GERTZMAN: Objection.

3 (Thereupon, an informal discussion was  
4 held off the record with the shorthand  
09:42 5 reporter.)

6 BY MR. TENREIRO:

7 Q. Did -- you said, "fund transactions."

8 Was someone receiving the XRP when they engaged in  
9 a transaction, or what was happening to the XRP?

09:43 10 A. Transaction fees are destroyed.

11 Q. So the XRP that was, let's say, charged by  
12 the ledger for a transaction just disappears?

13 A. Correct.

14 MR. CERESNEY: Objection to form. You've  
09:43 15 got to wait.

16 THE WITNESS: Yes.

17 BY MR. TENREIRO:

18 Q. Is that still the case today?

19 A. Yes.

09:43 20 Q. And the cost of a transaction has changed  
21 over time for this function only?

22 A. I think -- I think there was at least one  
23 change, but I don't recall for sure.

24 Q. Who would have programmed that change?

09:43 25 A. There was a change to the fee structure that

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09:43 1 I originally designed, and it was implemented by the  
2 team -- the team at the time.

3 Q. The programmers?

4 A. Yes.

09:43 5 Q. When I asked you what the function of XRP was  
6 at the time that the ledger was launched publicly, you  
7 said at that time, the primary function was to sort --  
8 sort the fund transactions.

9 A. Uh-huh.

09:44 10 Q. Was there any other function at that time?

11 A. Very close to that time, there was another  
12 function.

13 Q. What was that?

14 A. That was as -- as a sort of intermediary  
09:44 15 currency between other assets on the ledger.

16 Q. Is this in connection with the exchange that  
17 Ripple constructed on the XRP Ledger?

18 A. It is in connection with the decentralized  
19 exchange.

09:44 20 Q. Who created that exchange?

21 A. That was a very early design idea in very  
22 early 2012, and that was primarily developed by [REDACTED]

23 [REDACTED]

24 Q. Does that function exist today?

09:44 25 A. Yes.

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09:44 1 Q. Is it used today?

2 A. Yes.

3 Q. You know, how --

4 What's the order of magnitude of XRP used on that  
09:44 5 today?

6 A. I could not tell you offhand the magnitude of  
7 XRP that's used. I can tell you the value exchange is  
8 on the order of \$10 million a day, some XRP, some not.  
9 I suspect XRP is the dominant fraction of that.

09:45 10 Q. So it's other assets being exchanged for each  
11 other?

12 A. Yes.

13 Q. What assets, for example?

14 A. There are assets denominated in U.S. dollars,  
09:45 15 other cryptocurrencies are there, and then there are  
16 assets that represent either commodities or intangible  
17 items.

18 Q. Has Ripple ever sold XRP for use in this way  
19 on this decentralized exchange on the ledger?

09:45 20 (Pause.)

21 THE WITNESS: Ripple has sold XRP at  
22 times when XRP was being used on the  
23 decentralized exchange.

24 BY MR. TENREIRO:

09:45 25 Q. But has Ripple ever sold it specifically for

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09:45 1 that use, as far as you know?

2 A. It's hard to make sense of that question.  
3 Generally, we didn't know what people were going to use  
4 XRP for.

09:46 5 Q. Okay. At some point, did another use for XRP  
6 develop?

7 So we talked about the use as you've described the  
8 first user, the primary use as sort of avoiding spam  
9 transactions.

09:46 10 A. Uh-huh.

11 Q. Is that a fair characterization of that use?

12 A. Yes.

13 Q. And then we talked about the exchange. At  
14 some point, did other uses develop?

09:46 15 A. Yes.

16 Q. Okay, and let's start with when.

17 A. Roughly 2014, XRP started being used  
18 essentially as a means of payment.

19 Q. And who developed that use?

09:46 20 A. I don't know.

21 Q. Was it someone at Ripple?

22 A. No.

23 Q. Did Ripple promote XRP as a means of payment?

24 MR. CERESNEY: Objection to form.

09:47 25 THE WITNESS: If you interpret "promote"

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09:47 1 broadly enough, I believe, for example, we  
2 circulated documents that mention that as a  
3 use case.

4 BY MR. TENREIRO:

09:47 5 Q. Okay. All right. Just to be clear, no one  
6 at Ripple developed that use case; is that fair?

7 A. I don't believe so.

8 Q. Okay, and at any point in time, did any other  
9 uses develop?

09:47 10 A. I -- I think the -- I think there certainly  
11 were others.

12 Q. Well, actually, let me take a step back.  
13 Earlier, when I asked you whether Ripple had ever sold  
14 XRP specifically for use on the decentralized exchange,  
09:48 15 you said it's hard to make sense of that question.  
16 Generally, we didn't know what people were going to use  
17 XRP for.

18 Is that also true with respect to XRP's use as a  
19 means of payment? Did Ripple ever sell it specifically  
09:48 20 for that use, as far as you know?

21 MR. GERTZMAN: Objection to form.

22 THE WITNESS: Construing that broadly,  
23 you could include some of our -- some of the  
24 ODL uses.

09:48 25 BY MR. TENREIRO:

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09:48 1 Q. Construing what broadly?

2 A. Means of payment? Yes.

3 Q. You could construe some of the ODL -- well,  
4 did Ripple sell XRP in connection with ODL?

09:48 5 MR. GERTZMAN: Objection to the form.

6 (Pause.)

7 THE WITNESS: Yeah, it -- it's hard to  
8 give a "yes" or "no" answer to that question.

9 BY MR. TENREIRO:

09:48 10 Q. Why is that?

11 A. Both -- well, first of all, because I don't  
12 know exactly what -- what -- what the nature of the  
13 transactions that the ODL team negotiated were, and I  
14 hesitate to characterize them as "sales" without knowing  
09:49 15 more details about the nature of those transactions.

16 Q. Okay. Other than construing broadly means of  
17 payment to include ODL, as far as you know, did Ripple  
18 sell XRP as a means of payments?

19 MR. CERESNEY: Objection to form.

09:49 20 THE WITNESS: I don't know.

21 BY MR. TENREIRO:

22 Q. Okay. At some point, were there discussions  
23 at Ripple about trying to develop XRP for use for banks  
24 to use as a bridge currency?

09:49 25 A. Yes.

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09:49 1 Q. And did that use --

2 Did you have any involvement with -- any attempts  
3 to develop that use?

4 A. Yes.

09:49 5 Q. When did that use case as a bridge currency  
6 come into existence, if at all?

7 A. I think --

8 I think, as I said previously, the use as a sort of  
9 intermediary asset on the ledger was a very early idea,  
09:50 10 early 2013.

11 Q. Right. No, I understand the idea, but my  
12 question was a little bit different, which is: When did  
13 that idea actually come to fruition such that banks  
14 might have used XRP as a bridge currency?

09:50 15 MR. CERESNEY: Objection to form.

16 THE WITNESS: To my knowledge, for banks  
17 to be able to do that --

18 They wouldn't have been able to do it  
19 without -- with the Ripple -- with something  
09:50 20 made by Ripple until xRapid went live.

21 (Thereupon, an informal discussion was  
22 held off the record with the shorthand  
23 reporter.)

24 THE WITNESS: With a product that Ripple  
09:51 25 provided until xRapid was launched.

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09:51 1 MR. TENREIRO: xRapid.

2 THE SHORTHAND REPORTER: Thank you.

3 BY MR. TENREIRO:

4 Q. Which was when?

09:51 5 A. I don't recall exactly.

6 Q. Okay. We can get to that.

7 As far as you know, are banks using the xRapid  
8 product today?

9 A. Today, the primary customers are not bank  
09:51 10 financial institutions, payment -- payment providers.

11 Q. So did the --

12 This idea that banks might use XRP as a bridge  
13 currency -- has that actually come to fruition, meaning  
14 do banks actually use XRP as a bridge currency today, as  
09:51 15 far as you know?

16 A. Not as far as I know.

17 Q. Okay. Is it fair to say that the people who  
18 created the XRP Ledger are some of the people who  
19 founded Ripple?

09:52 20 A. Yes.

21 Q. Is it fair to say that the people who created  
22 XRP are some of the people who founded Ripple or created  
23 Ripple?

24 A. Yes.

09:52 25 Q. Okay. And Mr. Schwartz, you have an online

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09:52 1 pseudonym; is that right?

2 A. Yes.

3 Q. That's Joel Katz?

4 A. Yes.

09:52 5 Q. With a K?

6 A. Yes.

7 Q. We can get into -- we will get into the  
8 specific forum, but is it your understanding that --

9 Well, when you post online as Joel Katz, do you  
09:52 10 typically identify yourself as a Ripple employee?

11 A. Yes.

12 Q. Okay.

13 A. Yes.

14 Q. Do you have any understanding whether the  
09:52 15 people who read posts by Joel Katz understand that these  
16 are posts by Mr. Schwartz?

17 MR. CERESNEY: Objection form.

18 THE WITNESS: My understanding is that  
19 I'm pretty clear when I'm speaking for the  
09:53 20 company and when I'm speaking for myself.

21 BY MR. TENREIRO:

22 Q. Right. Thank you, but my question is: Do  
23 you --

24 Do you know whether people understand that Joel  
09:53 25 Katz is David Schwartz? Separate from the company for a

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09:53 1 second.

2 MR. CERESNEY: You're asking him to  
3 speculate as to whether --

4 MR. TENREIRO: Really, to speculate.

09:53 5 BY MR. TENREIRO:

6 Q. I mean, you're online a lot; is that fair to  
7 say?

8 A. Yes.

9 Q. You interact with people online; is that  
09:53 10 fair.

11 A. Yes.

12 Q. Okay. So from your interactions, do you  
13 think that these people know that Joel Katz is David  
14 Schwartz?

09:53 15 A. I have said so several times, but I don't  
16 know what -- whether -- I don't know that ... I -- I  
17 would have to speculate. I would have to speculate.

18 Q. Okay. In terms of what you said a minute  
19 ago, I think you said something along the lines of --  
09:53 20 you made clear --

21 You said, "I'm pretty clear when I'm speaking for  
22 the company and when I'm speaking for myself." What did  
23 you mean by that?

24 A. I mean that I generally try to make clear  
09:54 25 whether I'm speaking in my individual capacity or when

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09:54 1 I'm making a statement for the company.

2 Q. How do you do that? How do you make that  
3 distinction?

4 A. It varies. Sometimes by explicitly stating  
09:54 5 it's not a position of the company, so sometimes by  
6 explicitly stating that it is.

7 Q. If you don't explicitly state either, which  
8 is it?

9 A. I think it's -- I think it's -- it would  
09:54 10 generally be clear from context, but usually it's an  
11 individual view.

12 Q. So sort of like on Twitter where people  
13 say -- you know, "Views are my own, not my company's"?

14 A. Yes.

09:54 15 Q. That's the idea?

16 A. Yes.

17 MR. CERESNEY: Objection to form.

18 BY MR. TENREIRO:

19 Q. Okay. What would the -- well, let's look at  
09:54 20 the context.

21 You said it would be clear from the context. What  
22 context would I look for to know whether it's a company  
23 view or an individual view?

24 A. The type of statement that it was.

09:54 25 Q. What do you mean, the type of statement?

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09:54 1 A. If a statement is a clearly personal view,  
2 then someone would understand it to be a personal view,  
3 whereas if it's the type of statement that a future CTO  
4 would -- would hold, then it would be a more official  
09:55 5 view.

6 Q. A future CTO?

7 A. Right.

8 Q. What do you mean by that?

9 A. If it's -- if I'm speaking in my capacity as  
09:55 10 CTO of Ripple, it would be a position that would be --  
11 that any CTO could make. Even like a future CTO would  
12 be bound to that position, because it was a -- had been  
13 a statement from the office, if it's that type of  
14 statement.

09:55 15 Q. Before CTO, what was your title?

16 A. Chief cryptographer.

17 Q. Chief cryptographer was your title for the  
18 entire period before CTO?

19 A. I believe there was a brief period -- there  
09:55 20 were --

21 There was a brief period, prior to the formation of  
22 the company, where I either had no title or there might  
23 have been an expectation that I might have the CTO title  
24 at some point, but it was very quickly established it  
09:56 25 would be CTO.

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09:56 1 Q. Fair enough.

2 (Thereupon, an informal discussion was  
3 held off the record.)

4 BY MR. TENREIRO:

09:56 5 Q. I just want to ask one question before we get  
6 to the exhibits.

7 Are all the statements that you make online before  
8 XRP on behalf of the company or on behalf of yourself?

9 A. Most of them are on behalf of myself.

09:56 10 Q. And all the statements that you make online  
11 about Ripple -- are they on behalf of the company or  
12 yourself?

13 A. Most of them are on my own behalf.

14 Q. Okay. Does the company -- has the company  
09:56 15 ever tried to sort of restrict the statements that you  
16 make on your own behalf with respect to XRP or Ripple?

17 A. Only with respect to pending litigation.

18 Q. Okay. Have you ever received direction from  
19 the company about what you might post online?

09:57 20 MR. CERESNEY: Other than counsel?

21 BY MR. TENREIRO:

22 Q. Well, I don't want to get into the  
23 conversations, but has counsel directed you to post  
24 online?

09:57 25 MR. CERESNEY: I'm not going to allow him

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09:57 1 to answer what counsel has directed him to do.

2 If the question is "Have there been  
3 discussions with counsel about his posts,"  
4 that's a fair question.

09:57 5 If the question is what he's been  
6 directed to do, I'll instruct him not to  
7 answer.

8 BY MR. TENREIRO:

9 Q. All right. Let's ask the first question.  
09:57 10 Have there been discussions with counsel about your  
11 posts online?

12 A. Yes.

13 Q. Which counsel?

14 A. Current counsel in -- current counsel in  
09:57 15 the -- in this litigation.

16 Q. Any other counsel before?

17 A. Not that I recall.

18 Q. Did you discuss any of your public posts with  
19 counsel at Perkins Coie -- or did you discuss the --

09:57 20 Just "yes" or "no." Did you discuss your public  
21 posts with Perkins Coie counsel?

22 A. Yes.

23 Q. Okay. Let's look at --

24 A. No, I'm sorry.

09:58 25 I want to correct that answer. I believe Perkins

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09:58 1 Coie -- no, I did not.

2 Q. Okay. What about Paul Hastings?

3 A. I don't believe so.

4 Q. And so your --

09:58 5 Your current recollection is that the only counsel  
6 you've discussed the subject of your posts with is  
7 Debevoise?

8 A. Yes, that's correct.

9 Q. What about others at the company?

09:58 10 Have you discussed with nonlawyers at the company  
11 your posts?

12 A. Yes.

13 Q. Have they directed you with respect to your  
14 posts online?

09:58 15 A. Yes.

16 Q. And generally, what have they told you?

17 MR. CERESNEY: I just -- just to be  
18 clear, these are not lawyers?

19 THE WITNESS: Right.

09:58 20 MR. CERESNEY: Okay.

21 THE WITNESS: Only both not to discuss  
22 pending litigation, and occasionally, they  
23 recommended a particular tweet.

24 BY MR. TENREIRO:

25

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09:58 1 Q. Have you followed those recommendations?

2 A. Generally, yes.

3 Q. Are those on behalf of the company or on  
4 behalf of yourself?

09:59 5 A. It's not really possible to answer in  
6 general.

7 Q. We would have to look at the specific ones?

8 A. Yes.

9 MR. TENREIRO: Okay. Now, Exhibit 25.  
09:59 10 I'm going to pass around -- the exhibits have  
11 been premarked. We e-mailed some to you.  
12 There's a couple that have changed. I will  
13 let you know on the record when that occurs.

14 I will also note for the record we  
09:59 15 accidentally marked these with yesterday's date,  
16 so -- you know, we're not intending to travel  
17 back in time. It's today's date. This is  
18 Exhibit 25, DS-25.

19 (Thereupon, a two-page Twitter printout  
09:59 20 entitled "David 'JoelKatz' Schwartz on Twitter:  
21 '@bitcoinlobo @SASchofield52 Ripple I know it  
22 sounds ridiculous tod...' dated 1/8/19" was  
23 introduced as DS Exhibit 25 for identification.)

24 MR. CERESNEY: Just for the record, do  
09:59 25 you have a copy?

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09:59 1 MR. TENREIRO: Yes.

2 MR. CERESNEY: Just for the record, I  
3 understand that the exhibits will be e-mailed  
4 to the folks on the zoom so they have it.

09:59 5 MR. TENREIRO: And we have the list of  
6 e-mails?

7 MR. CERESNEY: Yes. Daphna has the list  
8 of e-mails.

9 (Thereupon, an informal discussion was  
09:59 10 held off the record.)

11 MR. CERESNEY: So if you want to ask  
12 foundation questions --

13 MR. TENREIRO: Sure. Sam is here, right?  
14 We just need to e-mail it to Larsen's counsel.

09:59 15 (Thereupon, an informal discussion was  
16 held off the record.)

17 MR. TENREIRO: Okay. Great.

18 MR. CERESNEY: Nowell's on the Zoom as  
19 well, so he deserves a copy as well.

10:00 20 MR. BAMBERGER: Thank you.

21 BY MR. TENREIRO:

22 Q. Mr. Schwartz, is this your Twitter account?

23 A. Yes.

24 Q. So -- sorry. @JoelKatz is your Twitter  
10:00 25 account?

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10:00 1 A. Yes.

2 Q. Okay. I'm referring you to a tweet towards  
3 the middle of the page, where you say -- actually, it's  
4 on the second page. Do you see a tweet where you say:

10:00 5 "It is misleading to say Ripple had nothing to do  
6 with the creation of XRP. The people who created XRP  
7 are pretty much the same as the people who created  
8 Ripple, and they created Ripple originally to, among  
9 other things, distribute XRP"?

10:00 10 Do you see that tweet?

11 A. Yes.

12 Q. Did you make that tweet?

13 A. Yes.

14 Q. Did the company direct you to make this  
10:01 15 tweet?

16 A. No.

17 Q. Is this tweet on behalf of the company or  
18 yourself?

19 (Pause.)

10:01 20 THE WITNESS: I -- I don't really know.

21 (Thereupon, an informal discussion was  
22 held off the record.)

23 BY MR. TENREIRO:

24 Q. And if I'm reading the tweet, how could I  
10:01 25 tell -- you know, this is David speaking or Mr. Schwartz

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10:01 1 speaking or is this someone on behalf of the company?

2 What context here would I look to determine -- you  
3 know, which of the two it was?

4 MR. CERESNEY: I'm just instructing the  
10:01 5 witness to look at the whole chain just so he  
6 can put it in context.

7 MR. GERTZMAN: I'm going to object to the  
8 form.

9 THE WITNESS: I don't know what someone  
10:01 10 else would look to, but I would look to the  
11 conversational flow of the chain to see this  
12 is an individual engaged in a conversation.

13 BY MR. TENREIRO:

14 Q. So looking at the conversational flow of the  
10:02 15 chain, is this a tweet on behalf of Mr. Schwartz  
16 individually or on behalf of the company?

17 A. I don't really have an answer. I don't know.

18 Q. Okay. Did anyone at the company ever ask you  
19 to remove a post you've made online?

10:02 20 A. Not that I can think of. I don't believe so.

21 Q. Have any of your posts been removed by you?

22 A. There -- there are a couple cases.

23 Q. What are those cases?

24 A. One of them -- one -- one example would be  
10:02 25 posts that like had a typo or some error, I just

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10:02 1 removed. Twitter has that function, so I removed it to  
2 correct fairly immediately.

3 Q. Any other examples that come to mind?

4 A. I don't believe I've ever removed a  
10:02 5 substantive post significantly after making it.

6 Q. Was there something called --

7 A. Oh, let me just say one thing.

8 There was one tweet that I made that someone said  
9 was causing them to get abusive comments, and so I  
10:03 10 deleted that post at their request.

11 Q. Okay. Was there something called XRP Forum?

12 A. Yes.

13 Q. Does that still exist?

14 A. I think it may have changed its name. It at  
10:03 15 one time was Xrp Chat, and I believe it still exists in  
16 one or the other form.

17 Q. Who managed it?

18 A. I cannot remember the name.

19 Q. Was there something called XRP Wiki at some  
10:03 20 point?

21 A. I don't recall that, but there might have  
22 been.

23 Q. Okay. Going back to the exhibit, Exhibit 25,  
24 which you have in front of you, and the tweet that I  
10:03 25 read, what did you mean when you say here that "The

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10:03 1 people who created XRP created Ripple originally to,  
2 among other things, distribute XRP"?

3 What does "distribute XRP" mean here?

4 A. Give XRP to people so they could access the  
10:04 5 ledger.

6 Q. Okay, and is -- why are you --

7 What do you mean by "It's misleading to say Ripple  
8 had nothing to do with the creation of XRP"?

9 A. Precisely for the reason I state in the  
10:04 10 second sentence, that the people who created XRP are the  
11 same people that created Ripple, and one of their  
12 objectives in creating Ripple was to give people XRP so  
13 they could interact with the ledger.

14 Q. Did there come a time when it sort of became  
10:04 15 a talking point of the company to state publicly that  
16 XRP was created after the company -- sorry -- before the  
17 company was founded?

18 MR. CERESNEY: Objection to form.

19 MR. GERTZMAN: Form.

10:04 20 THE WITNESS: To my knowledge, we stated  
21 it and then it became -- it sort of morphed  
22 into a talk point because other people stated  
23 that it was not true.

24 BY MR. TENREIRO:

25

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10:04 1 Q. Okay, and what -- what is -- what is your  
2 understanding of the reason why people said it was not  
3 true?

4 MR. CERESNEY: Objection to form.

10:05 5 BY MR. TENREIRO:

6 Q. If any?

7 MR. CERESNEY: If you know.

8 THE WITNESS: I don't really know.

9 BY MR. TENREIRO:

10:05 10 Q. Okay, and does -- why -- does Ripple -- does  
11 Ripple --

12 Is Ripple's current sort of position to the public  
13 that XRP was created before Ripple was created?

14 MR. CERESNEY: Objection to form.

10:05 15 MR. GERTZMAN: Objection to form.

16 THE WITNESS: We've always stated that.

17 MR. TENREIRO: Okay.

18 (Pause.)

19 BY MR. TENREIRO:

10:05 20 Q. Okay. We'll talk about the consensus  
21 mechanism a little more, but I want to ask you in the  
22 last --

23 In the last step of the consensus process for the  
24 XRP Ledger, when the last known ledger closes -- is that  
10:06 25 the last step of the consensus mechanism?

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10:06 1 A. You can define the consensus -- so --  
2 It's unfortunate that there's some confusion in  
3 terminology.

4 Some people use the term "consensus" to mean  
10:06 5 everything necessary to advance the ledger and have  
6 ledgers that people rely on, and some people draw a  
7 distinction between what's consensus and what's a  
8 validation.

9 Q. How do you think about it?

10:06 10 A. Because I'm involved in the technical  
11 process, I generally draw that distinction, but it's  
12 generally less helpful to do that -- you know, in  
13 conversation with people who are not technically  
14 interested in it.

10:06 15 Q. I actually am technically interested in the  
16 details, so the validation process -- please -- so we're  
17 on the same page, where do you draw the distinction? So  
18 let's start again.

19 There are some steps in this process where let's  
10:06 20 say a node that's validating transactions puts out its  
21 sort of idea of what the ledger should look like; is  
22 that correct?

23 MR. CERESNEY: Objection to form.

24 THE WITNESS: That's what I describe as  
10:07 25 the validation part of the process.

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10:07 1 BY MR. TENREIRO:

2 Q. Okay.

3 A. As distinct from consensus.

4 Q. And consensus is what part of the process?

10:07 5 A. Consensus is the part of the process that  
6 advances the ledger without necessarily establishing  
7 finality.

8 Q. Well, why would it not establish finality?

9 A. That's validation's job. You do have  
10:07 10 to finality in order to be -- in order for --

11 (Thereupon, an informal discussion was  
12 held off the record with the shorthand  
13 reporter.)

14 THE WITNESS: Sorry. In order for  
10:07 15 advancing the ledger to be useful, at some  
16 point, you have to establish finality. But  
17 I -- I --

18 For technical precision, I prefer to  
19 describe those as two separate processes:  
10:07 20 Consensus, advance the ledger; validation,  
21 establish finality.

22 BY MR. TENREIRO:

23 Q. Which occurs first?

24 A. Consensus.

10:07 25 Q. Okay, and validation -- is this the last step

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10:07 1 in this entire process? Is that correct?

2 MR. CERESNEY: Objection to form.

3 THE WITNESS: Yes.

4 BY MR. TENREIRO:

10:08 5 Q. Okay. When --

6 So when validation occurs, is that the moment when  
7 the last known ledger is closed?

8 A. No.

9 Q. That's the consensus part?

10:08 10 A. Yes.

11 Q. Okay. When validation occurs, the ledger  
12 advances? The state of the ledger advances?

13 A. It depends on how you define "state of the  
14 ledger".

10:08 15 Q. Well, how do you define it for purposes of  
16 the moment when validation occurs?

17 A. So the state -- consensus is always advancing  
18 the state of the ledger, but if you define state of the  
19 ledger as the confirmed state, then validation advances  
10:08 20 that state of the ledger.

21 Q. Okay, so let -- let's define it as the  
22 confirmed state.

23 So validation advances the confirmed state of the  
24 ledger?

10:08 25 A. Yes.

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10:08 1 Q. That's something you want to occur?

2 A. That's the ultimate goal of this process.  
3 These are all steps to achieve that end result.

4 Q. When validation advances the confirmed state  
10:09 5 of the ledger, where does that occur physically?

6 A. In each individual node participating in or  
7 moderating or participating in the process. That's an  
8 individual decision that each server makes.

9 Q. So it occurs --

10:09 10 Just today, as an example, is it fair to say that  
11 there are nodes engaging in this consensus validation  
12 process all over the world?

13 A. Yes.

14 Q. Including the United States?

10:09 15 A. Yes.

16 Q. So is it your testimony that when the  
17 validation advances --

18 When the validation process advances the confirmed  
19 state of the ledger, this physically occurs in several  
10:09 20 countries all over the world?

21 MR. CERESNEY: Objection. Are you asking  
22 for a legal conclusion?

23 MR. TENREIRO: No. I'm asking him where  
24 physically --

10:09 25 MR. CERESNEY: You're just asking where

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10:09 1 the servers are that are the validators?

2 MR. TENREIRO: No. I'm not asking him  
3 that.

4 BY MR. TENREIRO:

10:09 5 Q. When the validation advances -- when the  
6 validation process advances the confirmed state of the  
7 ledger, where is that physically occurring? If the  
8 answer depends on where the servers are, you can explain  
9 that.

10:10 10 A. Each server independently tracks the state --  
11 what it considers the last validated ledger, and it  
12 advances its own state.

13 Q. And so if a server is in the United States,  
14 that is occurring in that server in the United States?

10:10 15 A. That server will advance its own state where  
16 that server is for its own purposes.

17 Q. But you need -- you know, 80 percent of the  
18 servers to advance sort of their agreed-upon state  
19 ledger, right?

10:10 20 MR. CERESNEY: Objection to the form.

21 THE WITNESS: 80 percent of the servers  
22 that particular server has chosen to listen  
23 to.

24 BY MR. TENREIRO:

25

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10:10 1 Q. Right. Okay, so from the perspective of the  
2 server that has chosen a particular set is it fair to  
3 say that this validation process that confirms the  
4 closed state of the ledger currencies on all of the  
10:10 5 servers, it's distributed across all of the servers?

6 A. Yes.

7 Q. Okay. All right. What percent --

8 Do you know what percentage of the validate --  
9 ledger validating nodes today are run in the United  
10:11 10 States?

11 A. I don't.

12 Q. How would I find that out?

13 A. I guess you could crawl the network. You  
14 would have to do a three-step process.  
10:11 15 You'd have to crawl the network to identify all the  
16 nodes, then check each node to see which are validating,  
17 and then you could -- you could infer the geographic  
18 location from the IP address.

19 Q. All right.

10:11 20 A. It would not be a perfect process, but it  
21 would be reasonably accurate.

22 Q. Do you know if any of the nodes use VPN to  
23 mask their IP address?

24 (Thereupon, an informal discussion was  
10:11 25 held off the record with the shorthand

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10:11 1 reporter.)

2 THE WITNESS: I don't.

3 BY MR. TENREIRO:

4 Q. Okay.

10:11 5 A. I don't know why someone would other than to  
6 maybe secure -- I think if they did, they would be more  
7 likely to protect against being attacked than to mask  
8 them.

9 Q. Right, and Ripple has nodes that are ledger  
10:12 10 validating nodes today; is that fair?

11 A. Yes.

12 Q. And where are the servers for that located?

13 A. We've moved them several times. I'm not sure  
14 precisely where they are today.

10:12 15 Q. Do you know what country they are in?

16 A. I don't.

17 Q. Who would know?

18 A. I'm sure someone in our office. I suspect  
19 they are suspect they are geographically distributed for  
10:12 20 fault tolerance, but I don't know for sure.

21 Q. Do you know if some of them are in the United  
22 States?

23 A. I don't. I would have to guess.

24 Q. Okay. We'll get back to the ledger. Has --  
10:12 25 did Ripple ever promote XRP as a virtual currency?

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10:13 1 MR. CERESNEY: Objection to form.

2 THE WITNESS: I think Ripple described  
3 XRP as a virtual currency.

4 BY MR. TENREIRO:

10:13 5 Q. To whom?

6 A. Every -- everyone. I think just in general.

7 Q. At what time?

8 A. I don't recall when we started using the term  
9 "virtual." Do you mean like specifically the term

10:13 10 "virtual currency" or the concept?

11 Q. The term.

12 A. I don't know -- remember when we started  
13 using it.

14 Q. So I understand that your testimony is that  
10:13 15 Ripple described XRP as a virtual currency, but did  
16 Ripple ever promote XRP as a virtual currency?

17 MR. CERESNEY: Objection to form.

18 THE WITNESS: I don't know the difference  
19 between promoting ... yeah, I can't really  
10:13 20 understand where the boundaries of "promote"  
21 would be.

22 BY MR. TENREIRO:

23 Q. Okay. Let's take a look at Exhibit 30.

24 (Informal discussion was held off the  
10:14 25 record.)

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10:14 1 (Thereupon, a 31-page document entitled  
2 "What Did Ripple Do Wrong? - Page 4 - General  
3 Discussion - Xrp Chat" was introduced as DS  
4 Exhibit 30 for identification.)

10:14 5 BY MR. TENREIRO:

6 Q. I'm handing you what was premarked DS-30.  
7 It's a Reddit post, I believe. Sorry, Xrp Chat post.  
8 There's a lot of pages. I'm just going ask you about a  
9 post on page 22.

10:14 10 You can look at whatever you need. I apologize for  
11 the way these print. I haven't figured out a better way  
12 to do it. Perhaps afterward, you will tell me how.

13 A. I have the same problem.

14 Q. Yeah, so I'll just --

10:14 15 There's no Bates number, because this is just from  
16 online -- you know, Xrp Chat.

17 A. There are small page numbers.

18 Q. Yeah, there's page numbers. I'm looking at  
19 22, but there's no Bates number.

10:14 20 A. Oh, I got you.

21 Q. The post at issue, I believe, was posted on  
22 April 2nd, 2017.

23 (Thereupon, an informal discussion was  
24 held off the record.)

10:15 25 THE WITNESS: So what page did you want

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10:15 1 to call my attention to?

2 MR. TENREIRO: 22. 22, please.

3 MR. CERESNEY: You will see that you're  
4 responding to the -- lots of posts, so take  
10:15 5 your time.

6 BY MR. TENREIRO:

7 Q. Yeah.

8 A. Difficult to tell who said what in some  
9 places.

10:15 10 Q. Maybe -- maybe this will help. If you look  
11 at the post, I believe -- but you can tell me if it's  
12 wrong, That you're quoting certain posts and then  
13 posting a response, as indicated by some of the  
14 quotation marks.

10:16 15 There's something in quotation marks. Then there's  
16 something else without quotation marks and so on a  
17 number of times.

18 A. Yes.

19 Q. Is that -- first of all, what is Xrp Chat?

10:16 20 A. It's a -- a forum that was created in the  
21 very early days to discuss XRP.

22 Q. Who created it?

23 A. I -- I knew, but I don't recall.

24 Q. Was it someone at Ripple?

10:16 25 A. No.

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10:16 1 Q. And this -- this --  
2 What appears to be this format where you have  
3 something quotes and then something not in quotes -- is  
4 that sort of familiar to you as a way that you might  
10:16 5 have made a post?  
6 A. Yes.  
7 Q. Okay, and you see the title of the thread is  
8 "What did Ripple do wrong?" Do you see that?  
9 A. Yes.  
10:16 10 Q. Do you recall this thread at all?  
11 A. Not at all, no.  
12 Q. Okay. So just looking at the post, there's a  
13 part where it says "Failure to promote XRP's currency."  
14 That's in quotation marks.  
10:17 15 Do you see that part?  
16 A. Yes.  
17 Q. You say:  
18 "We didn't think it made sense to take Bitcoin on  
19 head on at its strength."  
10:17 20 Do you see that?  
21 A. Yes.  
22 Q. What was Bitcoin's strength that you were  
23 referring to here?  
24 A. At that time, Bitcoin was being positioned as  
10:17 25 peer-to-peer digital cash as a -- as a means of

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10:17 1 peer-to-peer value exchange.

2 Q. So Ripple's strategy as a company was not to  
3 pursue that? Why not? Why was that the strategy?

4 A. Two reasons. One is that anyone could do  
10:17 5 that. There was no particular reason why Ripple would  
6 do that. It was something anyone could do. It didn't  
7 play to our strengths.

8 I think the other one was we kind of felt that  
9 Ripple -- that Bitcoin kind of -- that was Bitcoin's  
10:17 10 thing, so to go head to head against a market leader --  
11 you know, you would constantly face "Why not just use  
12 Bitcoin for that?"

13 Q. Right, and here you say --

14 Is this post on behalf of the company or on behalf  
10:18 15 of yourself? To the extent you say, "we" does that give  
16 context to the reader?

17 A. Yeah, I think that I -- I would agree.

18 Q. Do you agree that the word "we" gives context  
19 to the reader?

10:18 20 A. Yes.

21 Q. Okay, and does that mean it's on behalf of  
22 you or on behalf of the company?

23 A. I think someone would take this to be my view  
24 of what the company was doing, and then -- and then with  
10:18 25 me being an employee of the company, obviously, that has

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10:18 1 more weight than a random person's view of why a company  
2 does it.

3 Q. Sure. So is it fair to say that --

4 Is it fair to say that Ripple did not promote XRP  
10:18 5 as a -- as a cash-to-cash exchange like Bitcoin was?

6 MR. CERESNEY: Objection. I don't think  
7 that was the term he used.

8 BY MR. TENREIRO:

9 Q. Okay. Answer, please.

10:19 10 A. I'm sorry. Could you --

11 Q. Yes. Is it fair to say that Ripple did not  
12 promote XRP as a digital currency, at least up until the  
13 point of this post?

14 A. Ripple --

10:19 15 MR. GERTZMAN: Objection to form.

16 THE WITNESS: Ripple was not actively  
17 pursuing that use case.

18 BY MR. TENREIRO:

19 Q. Okay. Is it pursuing that use case today?

10:19 20 (Pause.)

21 THE WITNESS: A little -- a little bit.

22 BY MR. TENREIRO:

23 Q. Please explain.

24 A. We have some strategies that could -- that  
10:19 25 could facilitate those types of use cases.

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10:19 1 Q. Which ones?

2 A. Well, for example, the xPring strategy.

3 (Thereupon, an informal discussion was  
4 held off the record with the shorthand  
10:19 5 reporter.)

6 BY MR. TENREIRO:

7 Q. In what way does the xPring strategy  
8 potentially facilitate those types of use cases?

9 MR. CERESNEY: Objection.

10:20 10 THE WITNESS: At least two ways.

11 One would be some of the partners --  
12 people -- companies that we were providing  
13 investment or -- advice to or pursuing use  
14 cases in that direction, and then some of the  
10:20 15 software we were developing could be used by  
16 those people who had those use cases in mind.

17 BY MR. TENREIRO:

18 Q. And do you have -- with respect to the part  
19 of the strategy -- sorry. Some of the --

10:20 20 With respect to the companies that were pursuing  
21 use cases in that direction, do you have knowledge as to  
22 what the status of their pursuit is?

23 MR. CERESNEY: Objection. You used "that  
24 direction." It's ambiguous, but --

10:20 25 MR. TENREIRO: Well, he said, "that

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10:20 1 direction," and I was asking about the use  
2 case as a Bitcoin-like currency.

3 So I'm assuming that's what he meant when  
4 he said, "that direction," but if that's not  
10:21 5 correct, let me know.

6 MR. CERESNEY: It should be clear in your  
7 answer what you're talking about.

8 BY MR. TENREIRO:

9 Q. So let's take a step back.

10:21 10 I asked you in what way does the xPring strategy  
11 potentially -- you know, further the use cases we were  
12 discussion here, which is the -- you know, digital  
13 currency use?

14 And I think you said two ways. One would be some  
10:21 15 of the partners of companies we were providing advice to  
16 are pursuing cases in that direction.

17 When you said that direction, did you mean the  
18 discussion we're having now, the sort of medium of  
19 exchange use cases?

10:21 20 MR. CERESNEY: I think you used a term  
21 that hasn't come up until now, "medium  
22 exchange."

23 MR. TENREIRO: Sorry. He said -- he  
24 said, "medium of currency exchange" earlier.

10:21 25 (Pause.)

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10:21 1 BY MR. TENREIRO:

2 Q. So let's start again. Has Ripple --

3 So does Ripple today promote XRP as a digital  
4 currency, as this term is used in the exhibit?

10:22 5 MR. GERTZMAN: Objection to the form.

6 THE WITNESS: That's not a use case that  
7 we are directly pursuing.

8 But we do assist other people who are  
9 pursuing it, and we certainly do describe it  
10:22 10 as having the use case.

11 BY MR. TENREIRO:

12 Q. The people who are pursuing it -- that  
13 includes the Xpring companies, correct?

14 A. They are among -- they would be among that  
10:22 15 group, yes.

16 Q. What is the status of their pursuit of that  
17 use case, if you know?

18 A. I don't.

19 Q. Who knows?

10:22 20 A. Those individual companies.

21 Q. Does anyone at Ripple know?

22 A. I don't -- I don't know.

23 Q. Okay. Are you aware of a settlement between  
24 Ripple and FinCEN in 2015?

10:22 25 A. Yes.

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10:22 1 Q. What was the settlement about, in your own  
2 terms? Not what counsel has told you. Just what's your  
3 understanding?

4 A. My understanding is FinCEN alleged we didn't  
10:22 5 comply with laws regarding enforcement of sanctions and  
6 transmission of money.

7 Q. Did -- do you --

8 Are you aware of a settlement between Ripple and  
9 the Department of Justice in 2015?

10:23 10 (Thereupon, an informal discussion was  
11 held off the record with the shorthand  
12 reporter.)

13 THE WITNESS: Yes, I am.

14 BY MR. TENREIRO:

10:23 15 Q. And your understanding -- layman's, no legal  
16 advice -- what is that settlement?

17 A. My understanding of that settlement is that  
18 Department of Justice and FinCEN agreed not to prosecute  
19 Ripple for those violations in exchange for Ripple  
10:23 20 agreeing to a series of stipulations.

21 Q. At that point in time, did you derive an  
22 understanding -- and by "that point in time," I mean at  
23 the time of the settlements, did you derive an  
24 understanding as to whether XRP was a currency, based on  
10:23 25 those statements -- based on those settlements?

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10:23 1 A. That was a factor in my understanding of the  
2 status of the XRP.

3 Q. Okay, and did you derive an understanding as  
4 to whether the statements -- sorry. I keep saying, "the  
10:24 5 statements."

6 Did you derive an understanding as to whether the  
7 settlements sort of meant that Ripple did not have to  
8 comply with other statutes with respect -- that might  
9 govern XRP?

10:24 10 MR. CERESNEY: Objection, and also direct  
11 you not to reveal any discussions you might  
12 have had with counsel.

13 THE WITNESS: My layman's understanding  
14 at the time was that that meant that the  
10:24 15 position of the U.S. Attorney's office and  
16 Department of Justice was that XRP would be  
17 regulated and a form of -- as a form of --  
18 something more currency or commodity-like.

19 BY MR. TENREIRO:

10:24 20 Q. Did you derive an understanding what the  
21 SEC's position with regards to XRP would be based on  
22 those settlements?

23 A. I did not.

24 Q. Do you know if others at Ripple derived an  
10:24 25 understanding --

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10:24 1 MR. CERESNEY: Again --

2 BY MR. TENREIRO:

3 Q. -- on what the SEC's position on what XRP  
4 would be based on these settlements?

10:24 5 MR. CERESNEY: Again, I'll instruct you  
6 not to -- not to discuss conversations with  
7 counsel.

8 THE WITNESS: I didn't have any  
9 conversations with employees about that, so I  
10:25 10 couldn't -- I would have to speculate about  
11 what conclusions they might have drawn.

12 BY MR. TENREIRO:

13 Q. Did the settlement --

14 Did these settlements change your understanding as  
10:25 15 to whether XRP was, in fact, a digital currency as the  
16 term is used in the exhibit we're looking at?

17 A. I don't think it significantly exchanged  
18 my -- it was consistent with what I already expected.

19 Q. What do you mean, what you had "already  
10:25 20 expected"?

21 A. My expectation -- again, I'm not in  
22 compliance and this isn't my field expertise, but my  
23 expectation was the government would treat XRP as akin  
24 to a commodity.

10:25 25 Q. Let me -- I'm trying to understand, now,

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10:25 1 you -- in Exhibit 30, you say -- you know.

2 You respond to this point that says "failed to  
3 promote XRP as a digital currency" by saying, "We didn't  
4 think it make sense to take on Bitcoin head-on as its  
10:26 5 strength."

6 A. Uh-huh.

7 Q. Did the FinCEN settlement sort of change your  
8 understanding about whether XRP was a digital currency  
9 or not?

10:26 10 MR. CERESNEY: I'm going to object,  
11 because you're using this document to say  
12 something about the definition of the -- of  
13 XRP as a currency versus the use case that  
14 Ripple was promoting.

10:26 15 But you can answer the question, if you  
16 can.

17 (Pause.)

18 THE WITNESS: So I'm responding here  
19 to -- in -- in the statement "failed to  
10:26 20 promote XRP as a digital currency."

21 What I understand that to mean is that  
22 Ripple did not pursue a use case similar to  
23 Bitcoin's use case, and I testified previously  
24 to the reasons why we didn't do that.

10:26 25 I don't see a connection between that and

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10:26 1 the FinCEN statement and my -- my  
2 understanding as a result of the FinCEN  
3 settlement.

4 But that didn't significantly change my  
10:27 5 understanding. It was roughly consistent with  
6 what I had expected at the time.

7 BY MR. TENREIRO:

8 Q. Do you have an understanding as to why if  
9 Ripple did not pursue a use case similar to Bitcoin's  
10:27 10 use case -- you know, you had to enter into a settlement  
11 with FinCEN at all?

12 A. I don't know if this -- this particular  
13 statement was before or after the settlement with  
14 FinCEN.

10:27 15 Prior to the settlement with FinCEN, my view would  
16 have been that there was no particular reason why Ripple  
17 would pursue that use case, but we could have, and it  
18 might have been successful. It just might not have been  
19 the best use of resources. After that, my view was more  
10:27 20 that it wasn't tenable for Ripple to pursue that use  
21 case.

22 Q. Not tenable for what reason?

23 A. Because we had agreed with FinCEN on things  
24 that would make -- basically make it impractical to be  
10:27 25 compatible with Bitcoin if -- at that time.

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10:27 1 Q. This includes the stipulations you mentioned  
2 earlier?

3 A. Yes.

4 (Pause.)

10:28 5 BY MR. TENREIRO:

6 Q. I want to show you another exhibit which  
7 relates to this, which is 36.

8 Actually, before we do that, do you know if others  
9 at Ripple agree that it wasn't tenable or -- sorry --  
10:28 10 practical -- practicable to pursue the use case we've  
11 been discussing after the FinCEN settlement?

12 A. My recollection is that we had discussions.  
13 I don't recall specifically who, and that that was the  
14 predominant view. That's my recollection.

10:28 15 We weren't planning to pursue it anyway, so it  
16 wasn't -- it wasn't a couldn't controversial issue,  
17 because it wasn't something that was our strategy  
18 anymore.

19 Q. Did the discussions include Mr. Larsen?

10:28 20 A. I don't believe so.

21 Q. Did they include Mr. Garlinghouse?

22 A. I don't know for sure.

23 MR. TENREIRO: Do you want a break,  
24 Andrew?

10:29 25 MR. CERESNEY: Yes.

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10:30 1 MR. TENREIRO: Let's go off the record.

2 THE VIDEOGRAPHER: Going off the record  
3 at 10:30.

4 (Recess taken at 10:30 a.m.)

10:44 5 (Resumed at 10:44 a.m.)

6 THE VIDEOGRAPHER: Back on the record at  
7 10:44.

8 (Thereupon, a 35-page printout entitled  
9 "Ripple: The Most Prestigious Team - General"  
10:44 10 was introduced as DS Exhibit 36 for  
11 identification.)

12 BY MR. TENREIRO:

13 Q. Okay. Mr. Schwartz, we handed you what was  
14 premarked as Exhibit 36. It's another Xrp Chat  
10:44 15 printout. I'm going to look -- this one has 35 pages.

16 My focus is on page 15, which appears to be a post  
17 on May 5th -- May 21st, 2017. The prior exhibit, as I  
18 think we discussed, was in April of 2017.

19 A. Uh-huh. Yes.

10:44 20 Q. Here, if you take a moment to read, it seems  
21 like you're responding to someone who posted with a lot  
22 of all caps.

23 You say, "This is a good argument that it doesn't  
24 make sense for ordinary people to hold cryptocurrencies  
10:44 25 yet. This is one of the reasons Ripple didn't pursue a

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10:44 1 retail use case like Bitcoin did."

2 Can you please explain what you mean by "retail use  
3 case"?

4 A. I mean a use case where people hold  
10:44 5 cryptocurrencies and use them as money.

6 Q. And is this -- is it fair to say this was  
7 your view in 2017?

8 A. Yes.

9 Q. Is that still your view today?

10:44 10 A. Yes.

11 Q. Okay. Does Ripple today sell XRP for people  
12 to hold and use XRP as money?

13 A. Ripple sells XRP and some people do use it as  
14 money.

10:44 15 Q. Does Ripple, when it sells XRP, look for  
16 people that are going to hold and use it as money as the  
17 buyers?

18 A. I don't --

19 If you're talking about programmatic sales, Ripple  
10:44 20 doesn't choose the buyers.

21 Q. Yeah, so I'm talking about any sales. So  
22 let -- we can talk about programmatic sales. Who  
23 chooses the buyers?

24 A. They're chosen by the exchange.

10:45 25 Q. Does the exchange choose them or is it more

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10:45 1 the buyers sort of choosing themselves by introducing  
2 the transaction?

3 MR. CERESNEY: Objection to form.

4 THE WITNESS: You could describe it  
10:45 5 either way.

6 BY MR. TENREIRO:

7 Q. Does Ripple provide the exchanges any  
8 instructions that they -- you know, should choose the  
9 buyers based on whether they're going to hold and use  
10:45 10 XRP as money?

11 A. I can't imagine that they would be receptive  
12 to that type of advice.

13 Q. Why?

14 A. Because they -- they operate algorithmically.

10:45 15 Q. You mean the exchanges?

16 A. Yes.

17 Q. By the way, the exchanges --  
18 What interaction do they have with the XRP Ledger  
19 for the purpose of selling the XRP to the buyers we were  
10:45 20 discussing?

21 MR. CERESNEY: Objection to form.

22 THE WITNESS: My understanding is that  
23 they receive XRP from people who wish to sell  
24 it, then they send out XRP to people who have  
10:45 25 purchased it and those transactions take place

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10:45 1 on the XRP Ledger.

2 BY MR. TENREIRO:

3 Q. And just to be clear, when they receive XRP  
4 from people who wish to sell it, does that include  
10:46 5 Ripple's programmatic exchanges, programmatic sales?

6 A. I believe so.

7 Q. Okay. You referred to programmatic sales.

8 Are there any other type of XRP sales that Ripple  
9 engages in?

10:46 10 A. Over-the-counter sales.

11 Q. With respect to the over-the-counter sales,  
12 does Ripple sell XRP to people who would use -- hold and  
13 use XRP as money?

14 MR. CERESNEY: Objection.

10:46 15 MR. GERTZMAN: Objection to form.

16 MR. CERESNEY: You used the present  
17 tense. Is that what your intention --

18 MR. TENREIRO: Yes.

19 BY MR. TENREIRO:

10:46 20 Q. With respect to the counter sales, does  
21 Ripple sell XRP to persons who would hold and use XRP as  
22 money?

23 A. I don't --

24 MR. GERTZMAN: Objection to form.

10:46 25 THE WITNESS: I don't know the criteria

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10:46 1 for our current over-the-counter sales.

2 BY MR. TENREIRO:

3 Q. And what about historically? Were there --

4 Were there criteria for the over-the-counter sales  
10:47 5 related to whether people would hold and use XRP as  
6 money?

7 MR. CERESNEY: Objection.

8 (Pause.)

9 THE WITNESS: I don't know.

10:47 10 BY MR. TENREIRO:

11 Q. Okay. Who would know?

12 A. I'm not sure who was in charge of  
13 over-the-counter sales. Yeah, I'm not sure.

14 Q. So the person in charge of the  
10:47 15 over-the-counter sales might know?

16 A. Well, they might not have chosen the  
17 criteria, but I presume they would know what the  
18 criteria were.

19 Q. Okay.

10:47 20 (Thereupon, an informal discussion was  
21 held off the record.)

22 BY MR. TENREIRO:

23 Q. Mr. Schwartz, do you recall at times  
24 referring to Ripple's gateway strategy with respect to  
10:48 25 XRP?

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10:48 1 A. Yes.

2 Q. Could you just for the record what you mean  
3 by "gateway strategy"?

4 A. Yes. That was one of Ripple's first  
10:48 5 strategies that deserves to be called a strategy. The  
6 gateway strategy is that people would use the XRP Ledger  
7 as a multi-asset ledger to transact largely in the  
8 assets that they were traditionally comfortable, with  
9 like dollars.

10:48 10 If they wanted cryptocurrencies, they could, and  
11 the ledger would sort of act as a giant decentralized  
12 exchange with XRP as the transaction fee currency and as  
13 an intermediary asset.

14 Q. And is that --

10:48 15 Is that strategy different from what we discussed  
16 earlier this morning, that you described generally as an  
17 exchange on the ledger where there's a 10 million a day  
18 volume?

19 A. Those are substantially the same thing.

10:48 20 Q. Those are substantially the same?

21 A. Yes. The gateway strategy and current  
22 operation of the decentralized exchange are  
23 substantially the same end result.

24 (Thereupon, a two-page document entitled  
10:48 25 "Issuing Gateway vs. Private Exchange - Gateways

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10:48 1 and Exchanges - Xrp Chat" was introduced as DS  
2 Exhibit 60 for identification.)

3 BY MR. TENREIRO:

4 Q. Okay. Let's look at Exhibit 60, please.

10:49 5 A. Okay.

6 Q. This is an excerpt from Xrp Chat. I don't  
7 know how this printed so neatly compared to the other  
8 ones.

9 It's two pages, and it appears to be a post on  
10:49 10 January 24th. I'm not sure what the year is. I believe  
11 it's 2018, but I can't represent that to you.

12 A. Yes, I see that.

13 Q. Just by reading it, could you tell us what  
14 year it was?

10:49 15 A. Well, since I did say we did pursue a gateway  
16 strategy for several years, we began that strategy in  
17 2014.

18 Q. Can I direct you to the bottom of the first  
19 page where you say, "xRapid is our first big push to  
10:50 20 connect payments to XRP settlement"?

21 And my only question is if that sort of clues you  
22 in as to more or less when this post was made.

23 A. Well, it would have had to have been after we  
24 used the term xRapid as well.

10:50 25 Q. Okay, so that's -- that's fine. So first,

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10:50 1 you say, "Ripple is not targeting XRP at retail use"  
2 and the word "retail" is in quotation marks.

3 Now, did you have the same meaning there as you did  
4 in Exhibit 36 we saw a minute ago, when you say, "retail  
10:50 5 use"?

6 (Pause.)

7 THE WITNESS: I think so.

8 BY MR. TENREIRO:

9 Q. And just for the record, does that mean --  
10:50 10 does that mean hold and use XRP as money?

11 A. That means people holding and using XRP as a  
12 means of payment beyond the decentralized exchange and  
13 transaction fees.

14 Q. Okay. By the way, on the second page, it  
10:51 15 appears that your response is in 2018. If you take a  
16 look, there's an actual year marker there. Thank you.

17 A. I see that, yeah.

18 Q. Is that consistent with sort of your  
19 recollection when this post might be?

10:51 20 A. That's certainly reasonable.

21 Q. Yeah. When you say, "There are a variety of  
22 reasons for this, including the regulatory challenge,"  
23 what -- what regulatory challenge -- is that the FinCEN  
24 issue?

10:51 25 A. I believe it must have been, yeah.

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10:51 1 Q. You say, "It's also because we -- at least  
2 some of us -- don't think any cryptocurrencies are quite  
3 ready for mass adoption through this route yet."

4 Is that a similar sentiment as what we saw in  
10:51 5 Exhibit 36, your view that -- you know, cryptocurrencies  
6 aren't ready to be used as cash?

7 A. Well, not -- not mass adoption.

8 Q. As opposed to some people might do it, but  
9 not mass adoption?

10:52 10 A. Exactly. People who are specifically  
11 interested might do so, but it wouldn't be ready from  
12 like a mass retail use case.

13 Q. And here -- then, you say, "We did pursue a  
14 Gateway strategy for several years."

10:52 15 So is that gateway strategy the exchange on the XRP  
16 Ledger of assets for each other --

17 A. Uh-huh.

18 Q. -- that we were talking about?

19 A. Yes.

10:52 20 Q. Why did you say "did pursue" in the past  
21 tense, if you're still pursuing it here?

22 A. This probably was after we stopped pursuing  
23 that strategy.

24 Q. Oh.

10:52 25 A. Well, let me rephrase. It's not clear from

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10:52 1 this that I necessarily mean that we weren't still --  
2 and without -- without --

3 I would have to check the timeline for precisely to  
4 know for sure. This is consistent with either us still  
10:52 5 pursuing it or us having pursued it.

6 Q. The next sentence says:

7 "We had a very hard time on boarded gateways. An  
8 unreliable gateway is probably worse than no gateway.  
9 Gateways face challenges with regulatory compliance,  
10:53 10 customer service, and finding a good revenue model,"  
11 etc.

12 A. Uh-huh.

13 Q. Does that refresh your recollection as to  
14 whether you were still pursuing -- as to whether Ripple  
10:53 15 was still pursuing the gateway strategy at this point?  
16 And.

17 Then I'll just note for you the next paragraph says  
18 "So we pivoted to a strategy," etc.

19 A. Yeah, that's consistent with my understanding  
10:53 20 of the time. But I hesitate to say that we completely  
21 abandoned the gateway strategy.

22 Q. So is it your testimony that today, Ripple  
23 has not completely abandoned the gateway strategy?

24 A. I am not saying that we -- I'm saying that I  
10:53 25 can't conclude that we did completely abandon the

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10:53 1 gateway strategy at that time.

2 Q. Has it abandoned it today?

3 A. No.

4 Q. Okay. It hasn't completely abandoned it, but  
10:53 5 it has abandoned it somewhat? I'm trying to understand  
6 what Ripple's current position is with respect to the  
7 gateway strategy.

8 MR. CERESNEY: Objection to form.

9 THE WITNESS: I would say Ripple's --  
10:53 10 Ripple's commitment to the gateway  
11 strategy or focus on it has changed over time.

12 It first didn't exist, was very high,  
13 dropped for a while in preference to the  
14 RippleNet strategy, then came up again.

10:54 15 BY MR. TENREIRO:

16 Q. In preference to RippleNet strategy?

17 A. Yes.

18 Q. Is that the same as xRapid?

19 A. XRapid's a subset of the RippleNet strategy.

10:54 20 Q. Then you say, "came up again." The gateway  
21 strategy came up again?

22 A. Yes.

23 Q. When was that?

24 A. I would say probably -- I mean it did a  
10:54 25 little bit over a long periods of time, but I think

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10:54 1 around the time we noticed that the gateway strategy --  
2 the decentralized exchange was thriving despite our lack  
3 of focus on it.

4 Q. Okay. Let's take a look, now, at a different  
10:54 5 exhibit, which will be Exhibit 19.

6 (Thereupon, a document entitled "If Ripple  
7 failed, XRP died - General Discussion - Xrp  
8 Chat" was introduced as Exhibit 19 for  
9 identification.)

10:54 10 BY MR. TENREIRO:

11 Q. This is an Xrp Chat and this is 28 pages. My  
12 question is on page 12.

13 It appears to be posted June 3rd, 2016. The title  
14 of the thread is "If Ripple failed, XRP died." You do  
10:55 15 call them "threads," right, for Xrp Chat?

16 A. Yes.

17 Q. And do you call this -- let me --

18 When you're finished reading this part, my question  
19 is if you recall this thread.

10:55 20 A. I don't specifically recall writing this.

21 Q. Okay. Have you had a chance to read your  
22 post there?

23 A. Let me just -- let me just --

24 I've looked at the context. Let me just read my  
10:55 25 particular post in its entirety. One second.

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10:56 1 (Pause.)

2 THE WITNESS: Yes.

3 BY MR. TENREIRO:

4 Q. Okay. Let's start with "I don't think it's

10:56 5 likely XRP would succeed without us, though it is

6 possible."

7 What did you mean by that? How would it be

8 possible for XRP to succeed without Ripple?

9 MR. CERESNEY: Objection to form.

10:56 10 THE WITNESS: Today, I find it --

11 MR. CERESNEY: Do you want him to

12 answer -- you asked two questions, "What did

13 you mean by that?" and then the subsequent

14 question. Which one do you want him to

10:56 15 answer?

16 BY MR. TENREIRO:

17 Q. No, I'm asking back then. How -- how would

18 XRP subject succeed without Ripple in 2016?

19 A. Looking at this today, I'm surprised that I

10:56 20 would have said that in 2016. I believe in 2016 the

21 decentralized exchange was already in significant,

22 active use. Many exchanges were trading XRP. I --

23 Honestly, I'm -- I'm -- honestly, I'm very

24 surprised it's as late as 2016. That certainly isn't my

10:57 25 view today of what I would -- what I would have

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10:57 1 thought -- what I think I would have thought today in  
2 2016.

3 Q. Okay. But you did make this post, as far as  
4 you know?

10:57 5 A. I did, as far as I know.

6 Q. Later, you say:

7 "I do think it's possible for us to succeed without  
8 XRP succeeding as we do have other sources of revenue."

9 Is it fair to say that in 2016, XRP was one of  
10:57 10 Ripple's -- selling XRP was one of Ripple's sources of  
11 revenue?

12 A. I believe it was by 2016. I'm not sure.

13 Q. And -- okay. Then, you say:

14 "That said, our XRP is a significant asset." What  
10:57 15 does it mean there -- what do you mean, "a significant  
16 asset"?

17 A. I meant that Ripple held a significant amount  
18 of XRP.

19 Q. Was it worth a significant amount in 2016?

10:58 20 A. I don't -- I don't recall. I suspect -- I  
21 don't recall the price then.

22 Q. Okay. Did you monitor the price of XRP back  
23 in 2016?

24 MR. CERESNEY: Objection to form.

10:58 25 MR. TENREIRO: What's the objection?

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10:58 1 MR. CERESNEY: What the term "monitor"  
2 means.  
3 BY MR. TENREIRO:  
4 Q. Did you look at the price of XRP online?  
10:58 5 A. I believe I did check the price at the time,  
6 from as soon as it was possible to do that to the  
7 present.  
8 Q. You still do that today?  
9 A. Yes.  
10:58 10 Q. Why?  
11 A. Just to understand the sentiment in the  
12 market.  
13 Q. The sentiment as to what, as to XRP?  
14 A. Well, as to the entire cryptocurrency space.  
10:58 15 Q. Okay. What other digital asset prices do you  
16 look up online from time to time?  
17 A. Primarily, Bitcoin, Ethereum, and XRP. I  
18 think those are the three that I would look at most.  
19 Q. And do you hold XRP today?  
10:59 20 A. Yes, I do.  
21 Q. How much?  
22 A. I believe approximately [REDACTED].  
23 Q. And over the course of your employment --  
24 over the course of your life, how much XRP had you sold?  
10:59 25 A. Probably about [REDACTED].

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10:59 1 Q. [REDACTED] XRP?

2 A. It's probably a little more than that. Maybe

3 [REDACTED].

4 Q. And in exchange for what did you sell that  
10:59 5 XRP?

6 A. Either Bitcoin or U.S. dollars.

7 Q. How much in U.S. dollars?

8 A. I think about [REDACTED].

9 Q. And how much in Bitcoin?

10:59 10 A. That I don't know, but much less.

11 Q. Much less in the equivalent of dollars to  
12 Bitcoin?

13 A. Yes, yes. It's -- it's just challenging  
14 because the price of Bitcoin is also variable.

10:59 15 Q. Yeah?

16 A. So it's hard -- it's less in terms of the  
17 magnitude of value.

18 Q. Okay. Where did you sell -- how -- how did  
19 you sell your XRP?

11:00 20 A. Either on exchanges or on the decentralized  
21 exchange.

22 Q. If you used exchanges, which ones did you  
23 use?

24 A. I believe I predominantly used [REDACTED] and  
11:00 25 [REDACTED] [REDACTED] probably third.

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11:00 1 Q. Back to the exhibit. You say:

2 "Our XRP strategy is based on promoting it as a  
3 bridging currency." Do you see that part? It's the  
4 second paragraph, third sentence?

11:00 5 A. Yes.

6 Q. What do you mean by "our XRP strategy"?  
7 Whose?

8 A. Ripple's.

9 Q. Okay. Here you're talking on behalf of  
11:00 10 Ripple or on behalf of yourself?

11 A. I think here I think I'm describing what  
12 Ripple's strategy is, which is -- I hesitate to put it  
13 in one of two buckets, but I am an employee of Ripple,  
14 describing what my view of what Ripple's strategy is.

11:00 15 Q. Right. At this point, had Ripple achieved  
16 adoption of XRP as a bridging currency?

17 I understand you're talking about --

18 MR. CERESNEY: Objection.

19 BY MR. TENREIRO:

11:01 20 Q. -- promoting it.

21 MR. TENREIRO: Sorry.

22 MR. CERESNEY: Objection to form.

23 BY MR. TENREIRO:

24 Q. I understand that you're talking here about  
11:01 25 promoting it as a bridging currency. You talk about

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11:01 1 significant technical obstacles and other ways in which  
2 the strategy might work.

3 My question is: At this point, had Ripple actually  
4 achieved adoption of XRP as a bridging currency?

11:01 5 MR. CERESNEY: Objection to form.

6 THE WITNESS: Yes and no. "Yes," to the  
7 extent that people were using it as a bridging  
8 currency.

9 "No," to the extent that Ripple didn't  
11:01 10 have a product that would allow people to do  
11 that at that time. At least, I don't believe  
12 we did in 2016.

13 BY MR. TENREIRO:

14 Q. Is that yes to the part that's on the  
11:01 15 exchange we were talking about?

16 A. Yes. It would be the part on the  
17 decentralized exchange.

18 And possibly people doing it other ways, too, but I  
19 wouldn't want to say -- I wouldn't know, but I know  
11:02 20 people were doing it on the decentralized exchange.

21 Q. Did Ripple -- you know, develop that  
22 decentralized exchange?

23 A. We developed the decentralized -- well, the  
24 decentralized exchange was developed by myself and  
11:02 25 [REDACTED], who subsequently became Ripple employees,

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11:02 1 but we didn't -- we didn't -- but I believe this --  
2 well, this is 2016. Sorry. I lost my train of thought.  
3 Can you --

4 Q. Yeah, yeah, yeah, so -- you know.  
11:02 5 I had asked you if Ripple at this point had  
6 achieved adoption of XRP's bridging currency. You said,  
7 "Yes, to the extent that people were using it as a  
8 bridging currency; no, to the extent Ripple didn't have  
9 a product."

11:02 10 That confused me a little bit, because I thought  
11 the exchange itself was one of Ripple's products.

12 A. The decentralized exchange?

13 Q. Yeah.

14 A. Not really, because that predates the  
11:02 15 company. That was developed largely by myself and  
16 [REDACTED] in early 2013.

17 And then adoption occurred initially with Ripple  
18 suggesting the adoption and then with Ripple pivoting to  
19 RippleNet strategy, but then adoption continued despite  
11:03 20 Ripple's lack of effort.

21 Q. Okay. Understood.

22 A. So if you want to attribute that success to  
23 Ripple or not, it is what it is.

24 Q. Yeah, I understand.

11:03 25 Does Ripple earn revenue from that decentralized

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11:03 1 exchange from people using it?

2 A. No.

3 Q. Has it ever, as far as you know, earned  
4 revenue from people using the decentralized exchange?

11:03 5 A. Not to my knowledge.

6 Q. Did there come a point in time where Ripple  
7 earned revenue from people using XRP as a bridging  
8 currency?

9 A. Yes.

11:03 10 Q. And when was that?

11 A. Once xRapid was live.

12 Q. What was the source of revenue through  
13 xRapid?

14 A. It would have initially been things like  
11:03 15 licensing fees and there may have been per transaction  
16 fees.

17 Q. Order of magnitude, do you know how much  
18 revenue Ripple has earned through xRapid?

19 A. No, I would have to guess.

11:04 20 Q. Towards the end of the post, you say -- I  
21 guess towards the bottom of the page -- "We do not plan  
22 to encourage use of XRP as an alternative to Bitcoin or  
23 as a direct payment method at this time."

24 Was that statement true in 2016?

11:04 25 A. I believe so, yes.

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11:04 1 Q. Okay. Let's move on. Well, let me ask you  
2 this:

3 Why are you publicly talking about the strategy  
4 that Ripple has?

11:04 5 MR. CERESNEY: Hold on. I just took --

6 MR. TENREIRO: Yeah, sorry.

7 (Thereupon, an informal discussion was  
8 held off the record.)

9 BY MR. TENREIRO:

11:04 10 Q. Yeah, page 12. You say:

11 "Our XRP strategy is based on promoting it as a  
12 bridging currency."

13 Why are you even talking publicly about the  
14 strategy Ripple has at this time?

11:05 15 A. When people say something that I know the  
16 truth on that's not correct, I have an uncontrollable  
17 instinct to correct them.

18 I call it "Code Red." Someone's wrong on the  
19 Internet. I know it's a thankless and eternal task, but  
11:05 20 I literally cannot help it.

21 Q. I will save my comments for off the record on  
22 that.

23 Is there any other reason why you publicly explain  
24 Ripple's plans from time to time?

11:05 25 A. I do feel like it's within -- I do feel like

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11:05 1 it's something that I should do as a -- you know, as a  
2 well known employee of the company.

3 Q. Why? Why should -- I mean, why do you feel  
4 that?

11:05 5 A. I don't really know.

6 Q. Well -- okay. Why -- and do you have a view  
7 as to whether -- sort of its a good idea to have  
8 accurate information about the company -- you know, out  
9 in public?

11:06 10 A. Yeah. Yes, I do think people should have  
11 accurate information rather than inaccurate information.

12 Q. Okay, so would you say -- I'm going to switch  
13 gears for a second.

14 MR. CERESNEY: Are you done with this  
11:06 15 exhibit?

16 MR. TENREIRO: I think so.

17 BY MR. TENREIRO:

18 Q. Would you say that when the ledger -- the XRP  
19 Ledger -- was launched, the public -- would you  
11:06 20 describe -- would you describe it as a centralized  
21 ledger or decentralized?

22 A. At the time, I would have described it as  
23 centralized. Today, I would describe it as  
24 decentralized.

11:06 25 Q. You would describe it as decentralized

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11:06 1 whether it was launched?

2 A. Soon as the source code was generally  
3 available outside the company.

4 Q. That's the moment you describe it as  
11:06 5 decentralized?

6 A. It is hard -- I will concede it's challenging  
7 to draw a bright line, but if you want to draw a bright  
8 line, that's where I would draw it.

9 Q. Okay, I could ask for a bright line, but  
11:07 10 that's fine. My question is -- let's do this:

11 Is it fair to say that at times, people will say  
12 that whether something is centralized or decentralized  
13 is suggestive?

14 A. Yes.

11:07 15 Q. And whether I say people, I mean people --  
16 you know, in the academic literature, for example?  
17 People say that -- whether something is centralized or  
18 decentralized is subjective?

19 A. There is no one consistent definition of  
11:07 20 centralized and decentralized that everybody means every  
21 time they use those terms.

22 Q. And when the ledger was launched, why would  
23 you describe it as centralized back then? Even though I  
24 understand that today, you don't have that view.

11:07 25 A. Back then, I would have described it as

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11:07 1 centralized, because the notion of centralization of  
2 decentralization wasn't very -- wasn't very precisely  
3 defined.

4 Q. But there was enough -- there must have been  
11:07 5 some definition such that you would have taken your view  
6 though to be centralized?

7 A. That's correct.

8 Q. What about your view back then about these  
9 concepts made you think back then that it was a  
11:08 10 centralized ledger?

11 A. The primary one would be that had Ripple  
12 stopped existing, gone away, disappeared, it's unlikely  
13 that anyone else would have continued the project.

14 Q. Why?

11:08 15 A. They would have had no reason to. They just  
16 wouldn't have been interested in doing so.

17 Q. Was one of the reasons because the XRP Ledger  
18 wasn't doing much back then?

19 MR. CERESNEY: Objection to form.

11:08 20 BY MR. TENREIRO:

21 Q. What are the reasons people would have had no  
22 interest?

23 A. I think it's fair to say that a person would  
24 have interest if they were using it for something that  
11:08 25 was important to them, and if they weren't using it for

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11:08 1 something that was important to them, just out of sheer  
2 interest in the technology or -- they could if they  
3 wanted to, but it's simply unlikely that they would  
4 have.

11:08 5 Q. At what point did your understanding of the  
6 concepts of centralization and decentralization change  
7 such that your view of what the ledger was originally  
8 also changed?

9 A. I think they continuously evolved throughout  
11:09 10 the entire time period, and it's hard for me to place --  
11 And that's reflected in many of my posts, where I  
12 think you'll find later on I talk more about "Well, if  
13 by 'decentralization' you mean this, then this means  
14 something else."

11:09 15 I understood that it was more nuanced and there  
16 were different notions of centralization and  
17 decentralization.

18 Q. This -- this sort of evolving  
19 understanding -- did you derive it from sort of --  
11:09 20 where, again, reading academic literature, conversations  
21 with fellow computer programmers? How is it that it  
22 changed?

23 A. Right, from -- from all of those things.  
24 I think the biggest one was just thinking about why  
11:09 25 does it matter is something is decentralized, what does

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11:09 1 a person actually care about, then that should inform --  
2 the definition should be a thing that you actually care  
3 about.

4 Q. Okay, and is it -- does Ripple care about  
11:09 5 whether the public perceives the XRP Ledger as  
6 centralized or decentralized?

7 MR. CERESNEY: Objection, form. He asked  
8 you whether Ripple cared.

9 THE WITNESS: I believe that -- that  
11:10 10 people at Ripple, including myself, care that  
11 people have an accurate understanding of the  
12 status of the ledger. If somebody wants to  
13 take the trouble to make a false statement,  
14 then we'll correct that false statement.

11:10 15 BY MR. TENREIRO:

16 Q. Separate from caring about accurate  
17 understandings, my question is:

18 Do people at Ripple, such as yourself, care about  
19 whether the public perceives the XRP Ledger is  
11:10 20 centralized or decentralized?

21 MR. CERESNEY: Objection.

22 MR. GERTZMAN: Objection.

23 MR. CERESNEY: You're asking people at  
24 Ripple such as himself. Are you just asking  
11:10 25 him?

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11:10 1 MR. TENREIRO: No, I'm asking him about  
2 Ripple, because he could have had  
3 conversations with other people where they  
4 might have said, "Hey -- you know. My name is  
11:10 5 [REDACTED]. I really want there to be this  
6 perception in the public."

7 MR. CERESNEY: If you can, answer the  
8 question.

9 MR. GERTZMAN: Just note my objection to  
11:10 10 the form.

11 MR. CERESNEY: Yeah. I objected, Mike.

12 THE WITNESS: I mean, I can --

13 I can say specifically that there were  
14 Ripple efforts to communicate the status of  
11:11 15 the ledger -- to accurately communicate the  
16 status of the ledger centralization or  
17 decentralization at various times.

18 BY MR. TENREIRO:

19 Q. And why did Ripple make those efforts?

11:11 20 A. I think largely to combat the false narrative  
21 that it was centralized.

22 Q. And were there other reasons? Not largely,  
23 but something else?

24 A. I don't -- I don't believe so.

11:11 25 Q. Okay. Do you know whether Ripple made

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11:11 1 efforts to communicate the status of the ledger,  
2 centralization or decentralization, in order to promote  
3 a litigation strategy?

4 MR. CERESNEY: Objection.

11:11 5 You should not reveal any discussions  
6 with counsel.

7 THE WITNESS: I do not believe we did  
8 that.

9 (Pause.)

11:12 10 (Thereupon, a printout from Bitcoin Forum  
11 entitled "Latest Posts of JoelKatz" dated May  
12 20, 2013" was introduced as Exhibit 6 for  
13 identification.)

14 BY MR. TENREIRO:

11:12 15 Q. Let's look at Exhibit 6, please. This is  
16 from the Bitcoin forum, "Latest posts of JoelKatz," and  
17 these are a series of posts in May 2013.

18 There's eight pages to the exhibit. I am going to  
19 ask you about something on page 3.

11:12 20 (Pause.)

21 BY MR. TENREIRO:

22 Q. Also on page 6. We can start with three, if  
23 that's okay.

24 A. Okay.

11:13 25 Q. Is it fair to say the way this is

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11:13 1 presented -- it's sort of you responding to something  
2 someone else said?

3 A. Yes.

4 Q. Okay, so on the top of page 3, you say --  
11:13 5 (Thereupon, an informal discussion was  
6 held off the record.)

7 MR. TENREIRO: Oh, I'm sorry. Yes. For  
8 the SEC person displaying them, it's six,  
9 please.

11:14 10 My understanding of how this works is you  
11 could -- maybe Mr. Schwartz has a different  
12 understanding.

13 But my understanding is you can select a  
14 user and you can sort of concatenate their  
11:14 15 posts, and it's not the threads. You'd have  
16 to click on the actual title of threads to see  
17 the whole thread. This is just their post on  
18 various threads.

19 (Thereupon, an informal discussion was  
11:14 20 held off the record.)

21 BY MR. TENREIRO:

22 Q. It shows what -- it says:

23 "Larsen can't have it both ways," and then, he  
24 says, "You're assuming OpenCoin will be a Ripple central  
11:14 25 authority forever."

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11:14 1           So we can go to page 3 of this exhibit, please,  
2           towards the top.

3           A.       Yes.

4           Q.       There we go.

11:14 5           When you say, "You are assuming OpenCoin will be a  
6           Ripple central authority forever," do you see that?

7           A.       Yes.

8           Q.       OpenCoin was that the name for Ripple before  
9           it was called Ripple?

11:15 10          A.       Yes.

11          Q.       Okay. What do you mean by "central  
12          authority"?

13                   (Pause.)

14                   THE WITNESS: I'm really not precisely  
11:15 15                  sure. Yeah, I'm really not. I'm not sure.

16          BY MR. TENREIRO:

17          Q.       You're not sure what you mean by "central  
18          authority," sitting here today?

19          A.       Yeah, let me read what I am responding to,  
11:15 20          again.

21                   MR. CERESNEY: Take your time.

22                   (Pause.)

23                   THE WITNESS: I think I meant the most  
24                   interested party, the party participating the  
11:15 25                   most in development.

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11:15 1 But I'm not really sure today what I  
2 meant by that at that time.

3 BY MR. TENREIRO:

4 Q. Here, does the word "ripple" refer to XRP?

11:16 5 A. "Ripple" refers to the XRP Ledger.

6 Q. The XRP Ledger?

7 A. I think so.

8 Q. There was a moment in time when XRP was  
9 referred to as "ripples"?

11:16 10 A. People have referred to them that way, yes.  
11 Ripple credits or -- yeah, the name's changed a number  
12 of times.

13 Q. Did Ripple have any role in sort of ensuring  
14 that the public did not use the word "ripples" or  
11:16 15 "ripple credits" instead of XRP?

16 MR. CERESNEY: Objection to the form.

17 MR. GERTZMAN: Objection to the form.

18 THE WITNESS: My recollection is there  
19 came a time when we -- when we treated  
11:16 20 "Ripple" as a company trademark.

21 BY MR. TENREIRO:

22 Q. Okay. When you say, "That is absolutely not  
23 our plan," who is "our" referring to?

24 A. This is early 2013, so I'm not -- I can tell  
11:17 25 you -- I don't know if it was -- well, I'm referring to

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11:17 1 OpenCoin, so I must have meant OpenCoin.

2 Q. Okay, and what do you mean by "That is  
3 absolutely not our plan"?

4 A. OpenCoin's intention was always -- was always  
11:17 5 to -- to reduce its own role.

6 Q. With respect to what?

7 A. Well, in the early days, OpenCoin's role  
8 was -- primary role was to distribute XRP, so as that  
9 job wound to a close, OpenCoin wouldn't have anything  
11:17 10 left to do.

11 Q. Has that job wound to a close today?

12 A. No.

13 Q. When -- when is it going to?

14 A. It's impossible to say.

11:17 15 Q. Okay. Would you say it's going to be in the  
16 next few years?

17 MR. CERESNEY: Objection.

18 THE WITNESS: Very hard -- very hard to  
19 say.

11:17 20 BY MR. TENREIRO:

21 Q. Okay. Page 6, please. This response is to a  
22 quote on May 16th. The quote says:

23 "Thanks for the clear responses." Your response  
24 says:

11:18 25 "We will do what we can to drive adoption."

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11:18 1 A. Yes.

2 Q. Then you say -- I'm skipping a sentence.

3 You say, "We plan to develop client and server  
4 software for as long as necessary." Who is the "we"  
11:18 5 there?

6 A. I suspect I'm speak on behalf of OpenCoin.

7 Q. "Server software"? Does that refer to the  
8 XRP Ledger?

9 A. At least that, yeah.

11:18 10 Q. I'm sorry? At least?

11 A. At least that, yeah. Could include other  
12 software, but yes.

13 Q. Is this still the plan that Ripple has today,  
14 to continue to develop server software, client and  
11:18 15 server software for the XRP Ledger?

16 A. Yes.

17 Q. It says "for as long as necessary"?

18 A. Yes.

19 Q. What does that mean? Who determines -- who  
11:19 20 determines whether it's still necessary?

21 MR. CERESNEY: Objection to form.

22 MR. TENREIRO: Actually, let me strike  
23 that.

24 BY MR. TENREIRO:

11:19 25 Q. How do you determine if it's still necessary

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11:19 1 for Ripple to do these things?

2 MR. CERESNEY: Objection.

3 THE WITNESS: Yeah, I don't -- I -- I --

4 I don't really know.

11:19 5 BY MR. TENREIRO:

6 Q. And do you know who determines it, whether  
7 it's still necessary or not?

8 A. Well, if -- well, OpenCoin, now Ripple, would  
9 determine its own plan, so that would be the term nation  
11:19 10 we would make, whether we felt we needed to do that  
11 authority.

12 Q. Further down, Post 696, you say, "The price  
13 of XRP is just a matter of supply and demand." Do you  
14 see that?

11:19 15 A. Yes.

16 Q. What -- what does that in layman's terms? Is  
17 it just Adam Smith?

18 A. Yeah.

19 Q. Supply and demand determine the price of an  
11:19 20 asset?

21 A. Yes.

22 Q. Okay. Typically, under this sort of theory,  
23 if demand goes up what happens to the price and  
24 everything else stays equal?

11:20 25 A. If everything else stays equal, an increase

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11:20 1 in demand would translate to an increase in price --  
2 again, if everything else stays equal.

3 Q. You say, we believe that broad adoption of  
4 Ripple as a payment platform will drive demand.

11:20 5 What does Ripple refer to there? Is that the  
6 ledger or XRP?

7 A. The ledger.

8 (Thereupon, an informal discussion was  
9 held off the record with the shorthand  
11:20 10 reporter.)

11 BY MR. TENREIRO:

12 Q. And will drive demand for what?

13 A. I don't say here.

14 Q. Can you tell me from context what you meant?

11:20 15 A. I don't -- I don't recall.

16 Q. Okay. I understand you don't recall, but  
17 does the context clue you in as to what you meant or  
18 not?

19 A. I mean, you could draw the conclusion as  
11:20 20 easily as I can. I don't what I -- what I meant by  
21 that.

22 Q. Okay. Is it still true today that the price  
23 of XRP is just a matter of supply and demand?

24 A. I hesitate to use the word "just." Supply  
11:21 25 and demand are factors that influence price, but I think

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11:21 1 the world is not as simple as a quote from Adam Smith.

2 Q. Is it fair to say the price of XRP today is  
3 in part a matter of supply and demand?

4 MR. CERESNEY: Objection to form.

11:21 5 BY MR. TENREIRO:

6 Q. As far as you understand?

7 A. I believe those are factors that affect the  
8 price.

9 Q. What other factors do you believe affect the  
11:21 10 price today?

11 A. Well, it's extremely complicated because if  
12 you look at the prices of digital assets, they don't --  
13 they seem to move despite what don't look like changes  
14 and the supply or demand for those particular assets.

11:21 15 There are a lot of specific examples where there  
16 were drastic changes in the supply or demand of digital  
17 assets and then there was no change in the price, so  
18 something else is going on.

19 Q. Fair enough. Was Ripple a central authority  
11:21 20 with respect to the XRP Ledger at this point in time?

21 MR. CERESNEY: Objection.

22 BY MR. TENREIRO:

23 Q. As far as you used those terms, "central  
24 authority"? We're going back to page 3.

11:22 25 A. I think there was a sense --

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11:22 1 I think there's some sense in which you could make  
2 that term meaningful and other senses which you could  
3 not.

4 Q. What are those senses?

11:22 5 A. In which you could or...

6 Q. Could not.

7 A. Well, for example, as I understand  
8 decentralization today, if Ripple went away, other  
9 people could have continued the ledger, had they wished  
11:22 10 to do so.

11 For example, had Ripple made a rules change, people  
12 could have resisted that change. They wouldn't have had  
13 to do what Ripple wanted them to do. So in that sense,  
14 we were not a central authority.

11:22 15 Q. Were there other nodes validating ledger  
16 transactions at that time?

17 MR. CERESNEY: "Other nodes"? Other  
18 than?

19 MR. TENREIRO: Yeah, other than the ones  
11:22 20 Ripple was using -- running.

21 THE WITNESS: I know there was at least  
22 one for sure. There might have been others.

23 BY MR. TENREIRO:

24 Q. How many were there?

11:22 25 A. I don't know.

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11:22 1 Q. All right.

2 Let's talk about the consensus mechanism for a  
3 minute. Could you describe it in your own terms,  
4 please? What's the consensus mechanism for the XRP  
11:23 5 Ledger?

6 A. The consensus mechanism for the XRP Ledger --  
7 It's very hard to describe it -- to describe  
8 something shortly, but it's the method by which the XRP  
9 Ledger reaches -- advances -- advances itself and  
11:23 10 reaches new confirmed ledgers that people can rely on.

11 Q. I'm sorry. Reaches new ...

12 MR. CERESNEY: You have to speak a little  
13 louder and --

14 BY MR. TENREIRO:

11:23 15 Q. That last part.

16 A. Confirmed ledgers that people can rely on.

17 Q. What method of reaching consensus does the  
18 XRP Ledger utilize?

19 A. The method is sometimes described as  
11:23 20 "Federated Byzantine Agreement."

21 (Thereupon, an informal discussion was  
22 held off the record with the shorthand  
23 reporter.)

24 THE WITNESS: What that means is -- what  
11:23 25 that means is there's sort of a continuous --

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11:23 1                   It's very analogous to a discussion with  
2                   human beings where they would actually agree  
3                   on something. They would literally come to an  
4                   agreement on it.

11:24 5 BY MR. TENREIRO:

6           Q.     The Byzantines didn't seem to agree on much,  
7           though, did they?

8           A.     Sorry. That describes the challenge, not so  
9           much the solution.

11:24 10          Q.     Does Ripple --  
11           Does the Ripple Ledger use Proof of Work to  
12           establish consensus?

13          A.     No.

14          Q.     Why not?

11:24 15          Whose idea was it for -- to use the consensus  
16           mechanism it does use?

17          A.     [REDACTED] had the original idea to  
18           replace -- to take something Bitcoin-like and replace  
19           Proof of Work with some sort of distributed agreement  
11:24 20           algorithm.

21          Q.     Does he use Proof of Stake?

22          A.     No.

23          Q.     Why not?

24          A.     For one thing, Proof of Stake didn't exist at  
11:24 25           the time.

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11:24 1 Q. That's a good answer. But today, why doesn't  
2 it?

3 A. Because Proof of Stake makes the stakeholders  
4 the people who hold the digital asset rather than the  
11:24 5 people who use the system.

6 Q. And why would one want to make the  
7 stakeholders those who use the system as opposed to  
8 those who hold the asset?

9 A. It's my belief that it produces a better  
11:25 10 system when the people who use the system and get value  
11 out of it are the primary stakeholders as opposed to  
12 those who just hold an asset.

13 Q. Is it fair to say that to run a node of any  
14 type on the ledger today you don't have to hold XRP?

11:25 15 A. Correct.

16 Q. And now there's -- how many nodes are on the  
17 ledger today?

18 A. Last I checked, there was something like 15  
19 hundred, but I couldn't tell you for you are sure what  
11:25 20 it is today.

21 Q. How many of those nodes are actually  
22 validating ledger transactions?

23 A. Last I checked, it was about 160 or so.

24 Q. What are the other nodes doing?

11:25 25 A. Let me back up a little bit. They are all

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11:25 1 validating in the sense that they are checking whether  
2 the transactions are valid.

3 But whether or not they are validators -- there's  
4 only about 170 of them.

11:25 5 Q. And the distinction being what?

6 A. Every node checks whether every transaction  
7 is valid, and a node will not take another node's word  
8 whether a transaction is valid or not.

9 But the validators participate in coming to a  
11:26 10 consensus to break ties, so the double spin comment.

11 Q. And how many of the hundred or so -- did you  
12 say 150?

13 A. I think it's about 170.

14 Q. Okay. How many of the 170 of these nodes are  
11:26 15 actually confirming transactions?

16 A. All -- all validators are confirming  
17 transactions.

18 Q. Okay. Let's look at Exhibit 9.

19 (Thereupon, a two-page document entitled  
11:26 20 "XRP Ledger Amendment" was introduced as DS  
21 Exhibit 9 for identification.)

22 BY MR. TENREIRO:

23 Q. Exhibit 9, please.

24 A. I see that.

11:27 25 Q. What's XRP scanned?

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11:27 1 A. I can tell you what it appears to be from  
2 this document. I don't have any independent knowledge.

3 Q. Okay. What does it appear to be?

4 A. It appears to be a tool that at least among  
11:27 5 other things can report on the status of proposed  
6 changes to the XRP Ledger.

7 Q. Does Ripple have any such tool?

8 A. I'm not sure. I think we do.

9 Q. Is that fair --

11:27 10 From that, may I infer fairly that you have not  
11 participated in the creation of such a tool?

12 A. That is correct.

13 Q. Okay. What is --

14 Just from looking at this document, what does this  
11:27 15 appear to represent to you?

16 A. This appears to represent the -- the sum  
17 subset of the validators appearing on the XRP Ledger and  
18 whether -- whether or not they support or oppose a  
19 proposed change to the software's operation.

11:27 20 Q. Okay. There's 28 yeas and nine nays. Do you  
21 see that?

22 A. On mine, I see 19 yeas.

23 Q. If you turn the page?

24 A. Oh, I see. Yes, there's 28 yeas and nine  
11:28 25 nays.

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11:28 1 Q. So do you know what the subset of 37  
2 validators are?

3 A. Given the -- I don't independently know, but  
4 I suspect, given the context, someone's recommended UNL.

11:28 5 Q. Do you know if Ripple recommended UNL?

6 A. I don't know for sure.

7 Ripple's UNL has changed over time. It's similar  
8 to many other recommended UNLs, so it's hard for me to  
9 know whether this was specific. It certainly could have  
11:28 10 been.

11 Q. How many validators are in Ripple's UNL  
12 today?

13 A. My last recollection was that it was 35. It  
14 may have changed. That may not be exactly correct at  
11:28 15 this moment.

16 Q. If the 35 nodes on that list all have the  
17 same UNL list, which is the 35 of them, what function is  
18 left for the other validators in that 150 or so group to  
19 do with respect to validating the transactions on the  
11:29 20 XRP Ledger?

21 A. Based on --

22 MR. CERESNEY: Hold on. 170?

23 THE WITNESS: However --

24 BY MR. TENREIRO:

11:29 25 Q. However many?

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11:29 1 A. Yeah.

2 Q. We don't have to determine the exact amount.

3 A. They still determine whether every

4 transaction is valid or not for their own purposes.

11:29 5 Q. Other than that, what role do they play?

6 A. That would be the only role.

7 Q. If they determine it's not valid for their

8 own purposes, what would they do?

9 A. They would ignore it.

11:29 10 Q. And for -- and enter -- you know, believe a

11 different state of the ledger?

12 A. Depending on how they are configured, the

13 ledger has significant protection against an accidental

14 fork.

11:29 15 So unless they intended to fork, they would -- they

16 would simply report that something was wrong, and they

17 would --

18 Q. To whom?

19 A. To their operators, and they would cease

11:29 20 operation.

21 Q. Okay. Reading the list here today, do you --

22 Do you know if some of these validators are on

23 Ripple's UNL today?

24 MR. CERESNEY: Jorge, what is the date of

11:30 25 this document?

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11:30 1 MR. TENREIRO: I printed this on the 23rd  
2 of May.

3 MR. CERESNEY: But it summarizes some  
4 amendments. Do we know when that was  
11:30 5 introduced and when the nodes were?

6 MR. TENREIRO: I think it's ongoing.

7 THE WITNESS: Yeah, this could -- this  
8 probably was the statement at the time we  
9 printed it. That's what it looks like. It's  
11:30 10 hard to say for sure.

11 MR. CERESNEY: It was still an ongoing  
12 process?

13 MR. TENREIRO: It was ongoing on the  
14 23rd. I know there's a two-week thing, but --

11:30 15 THE WITNESS: There is.

16 MR. CERESNEY: Do you know what this  
17 amendment is?

18 THE WITNESS: I'm not certain.

19 MR. CERESNEY: It's just I --

11:30 20 MR. TENREIRO: Do you know --

21 Well, I'm not asking about the amendment.  
22 I'm asking about the validators. So if he  
23 recognize these names as validators, it might  
24 be on Ripple's UNL.

11:30 25 MR. CERESNEY: You're asking whether any

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11:30 1 of these validators are on Ripple's UNL?

2 MR. TENREIRO: Yeah.

3 MR. CERESNEY: Okay.

4 THE WITNESS: I know some of them have  
11:31 5 been on our UNL at times, and there are  
6 several that I believe are still on our UNL.

7 BY MR. TENREIRO:

8 Q. Well, let's do this. Let's just set this  
9 aside for a second. What is the UNL list, for the  
11:31 10 record?

11 A. The -- a node to a UNL list is the list of  
12 validators that it has chosen to listen to break ties on  
13 the double spin problem, so ...

14 Q. And does Ripple publish a UNL list?

11:31 15 A. Yes.

16 Q. Is that referred to as the "dUNL" list?

17 A. Some people refer to it as that.

18 Q. Lower case D?

19 A. Yes.

11:31 20 Q. Why do people call it that?

21 A. Because there were times when it was the  
22 UNL -- it may still be true, where it's the UNL list you  
23 get if you don't choose one.

24 Q. So the default --

11:31 25 A. Yes.

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11:31 1 (Inaudible crosstalk.)

2 BY MR. TENREIRO:

3 Q. Why does Ripple publish this list?

4 A. Just to simplify administration of the XRP  
11:31 5 Ledger software.

6 Q. Okay. Does Ripple use the XRP Ledger  
7 software?

8 A. Yes.

9 Q. Is it fair to say Ripple has a stake in the  
11:31 10 XRP Ledger?

11 MR. CERESNEY: Objection to form.

12 THE WITNESS: I would say any -- I  
13 would -- I have said at times that every XRP  
14 holder has a stake in the ledger.

11:32 15 BY MR. TENREIRO:

16 Q. That includes Ripple?

17 A. Certainly, that would include Ripple.

18 Q. Does Ripple have a financial interest in the  
19 ledger?

11:32 20 MR. CERESNEY: Objection to form.

21 THE WITNESS: I mean, it's kind of a  
22 vague term, but I ...

23 BY MR. TENREIRO:

24 Q. Does it have a financial interest in the  
11:32 25 ledger operating/functioning correctly?

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11:32 1 A. I think so.

2 Q. Does it have a reputational interest in the  
3 ledger functioning correctly?

4 MR. CERESNEY: Objection to form.

11:32 5 THE WITNESS: I think so.

6 BY MR. TENREIRO:

7 Q. From your conversations at the company, do  
8 you have any idea whether --

9 MR. TENREIRO: Well, let me strike that.

11:32 10 BY MR. TENREIRO:

11 Q. Let's go back to my question. Who else is  
12 publishing UNL lists today?

13 A. I -- I don't necessarily know if everybody  
14 could be publishing the UNL list. I know [REDACTED] publishes  
11:33 15 one, and I know the [REDACTED] publishes one.

16 Q. What is [REDACTED]

17 A. [REDACTED] is a company that uses Interledger.

18 Q. What is [REDACTED]

19 A. [REDACTED] is a payment protocol that  
11:33 20 allows -- that doesn't use a ledger.

21 Q. Does not use a blockchain?

22 A. It can use assets that trade on a block  
23 change but doesn't itself.

24 Q. Is that the xCurrent software platform?

11:33 25 A. There are historical ties between them, but

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11:33 1 they have gone their separate ways since then.

2 Q. Historical ties between xCurrent and the  
3 software or platform that [REDACTED] uses?

4 A. [REDACTED] yes. Severed all ties between  
11:33 5 them.

6 Q. What commercial relationship, if any, does  
7 [REDACTED] have with Ripple?

8 MR. CERESNEY: Objection.

9 THE WITNESS: I believe Ripple has  
11:33 10 invested in [REDACTED]

11 BY MR. TENREIRO:

12 Q. What about -- what commercial relationship,  
13 if any, does Ripple have with the [REDACTED]?

14 MR. CERESNEY: Objection to form.

11:34 15 THE WITNESS: Ripple has donated -- I  
16 believe Ripple has donated to the [REDACTED]

17 [REDACTED]

18 BY MR. TENREIRO:

19 Q. How much?

11:34 20 A. I recall seeing the figure \$1.2 million, but  
21 I don't know if that was a proposed donation. I don't  
22 know.

23 Q. How much has Ripple invested in [REDACTED]

24 A. I knew at one time. I don't recall, though.

11:34 25 Q. Do you know if [REDACTED] UNL list is identical

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11:34 1 to the [REDACTED]?

2 A. I have not compared them.

3 Q. Do you know what overlap between [REDACTED] an  
4 Ripple's UNL lists?

11:34 5 A. I have not compared them.

6 Q. How many of the validators on Ripple's  
7 proposed UNL list are on the lists of the other nodes?

8 MR. CERESNEY: When you say, "the other  
9 nodes" --

11:34 10 MR. TENREIRO: 150 or 170 or so.

11 THE WITNESS: I believe the three  
12 published UNL lists I've talked about are at  
13 least substantially identical. I don't  
14 believe that they are identical. I don't know  
11:35 15 more detail than that.

16 BY MR. TENREIRO:

17 Q. They have to be substantially identical for  
18 the ledger to move forward, right?

19 A. Not unless -- assuming there's no -- assuming  
11:35 20 there's no intent to disagree.

21 Q. And it's --

22 Is it fair to say that Ripple employees have  
23 reached the conclusion the overlap has to be about 90  
24 percent?

11:35 25 A. Between 80 and 90 percent. Again, unless

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11:35 1 there's a decision to deliberately disagree.

2 Q. Set that aside for now.

3 Do you know how many of the validators, of the 150  
4 or 170, use Ripple's dUNL?

11:35 5 A. I have no idea.

6 Q. Is it still the default list?

7 A. I believe so.

8 Q. Why?

9 A. Because Ripple -- Ripple -- I mean, there has  
11:35 10 to be some default.

11 Q. That's true. Is there an infrastructure  
12 currently in place to manage validator lists?

13 A. Yes.

14 Q. What is it?

11:36 15 A. Everybody who publishes in UNL has some  
16 mechanism to keep track of which validators they keep on  
17 their list and why, and to actually --

18 The UNL itself has to be produced in a certain  
19 digital format in order to be accepted so they have the  
11:36 20 infrastructure to produce it in that format.

21 Q. The digital format is what, a JSON file?

22 A. My recollection --

23 It's been a while, is that the human input would  
24 typically be a JSON file, and there's a cryptographic  
11:36 25 process that converts it into a digital format and signs

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11:36 1 it, but underneath it is a JSON file.

2 (Thereupon, an informal discussion was  
3 held off the record.)

4 BY MR. TENREIRO:

11:36 5 Q. How many of the current nodes on Ripple's UNL  
6 list are operated by Ripple itself?

7 A. I -- one second. I think between three and  
8 five.

9 Q. Of the 35 or so?

11:37 10 A. Or so, yes. I know -- I know it dropped  
11 below 20 percent fairly recently.

12 Q. Right. Was it after this litigation began?

13 A. I don't know. I don't think so, but I don't  
14 know.

11:37 15 Q. And how many --

16 How many of the nodes on Ripple's dUNL are operated  
17 by entities with whom Ripple has a commercial  
18 relationship, such as [REDACTED]

19 A. I don't know.

11:37 20 Q. Who decides --

21 How does Ripple decide what validators it should  
22 put on its dUNL list?

23 A. We look at things like history of reliable  
24 operation, jurisdiction, some sort of commitment. We

11:37 25 don't want them to just disappear. Those are the

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11:37 1 factors that go into our decision.

2 Q. How do you gauge commitment?

3 A. Depends on -- if it's --

4 If it's an institution, like if it's a university,  
11:38 5 some sort of commitment from that institution as opposed  
6 to just someone there who's like, "I want to run a  
7 validator."

8 Q. Commitment to whom or to what?

9 A. Commitment to the validator -- to operating  
11:38 10 the validator.

11 Q. How could you -- how could you know --

12 How could Ripple know if they are committed to  
13 that?

14 A. We would ask them.

11:38 15 Q. Okay. Who at Ripple asks them?

16 A. I think at --

17 I think, at times, it's been [REDACTED] His last  
18 name's escaping me at the moment. More recently,

19 [REDACTED].

11:38 20 Q. Do they -- does Ripple enter into any sort of  
21 commercial agreement with these -- the universities to  
22 make sure that the commitment is true, or is it informal  
23 conversations, as far as you know?

24 A. As far as I know, it's informal. It's  
11:38 25 informal.

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11:38 1 Q. Does the amount of holding of XRP -- of any  
2 of the person or institution or validator weigh into the  
3 decision as to whether they might go on Ripple's dUNL  
4 list?

11:39 5 A. We don't weigh that factor.

6 Q. Who -- you don't? Meaning you, Ripple,  
7 don't?

8 A. Right.

9 Q. Who does?

11:39 10 A. It becomes a factor indirectly, because one  
11 of the reasons a person might want to run a validator is  
12 because they are interested in the performance of the  
13 XRP Ledger.

14 Q. Just to be clear, you don't have to have XRP  
11:39 15 to run a validator, right?

16 A. Correct.

17 Q. Do you have any knowledge as to whether the  
18 validators on Ripple's dUNL list actually have XRP,  
19 nodes?

11:39 20 A. I don't.

21 Q. The universities that run validator nodes  
22 that are on Ripple's dUNL list --

23 Have they received XRP from Ripple directly or  
24 indirectly, as far as you know?

11:39 25 A. As far as I know, no. Obviously, Ripple

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11:39 1 holds XRP. [REDACTED] I believe, holds XRP. And some of  
2 these are businesses that probably -- probably hold it.  
3 I don't -- I don't know.

4 Q. Is [REDACTED] on the Ripple dUNL list?

11:40 5 A. I believe so.

6 Q. And does Ripple have a commercial  
7 relationship with [REDACTED]

8 A. Yes.

9 Q. Is there a process for someone to come ask to  
11:40 10 be put on your list?

11 A. I don't know that there's a formal process.  
12 I know people have asked us.

13 Q. Again -- I'm sorry. Who -- maybe I asked  
14 you. Maybe I didn't.

11:40 15 Who at Ripple ultimately decides who goes on the  
16 dUNL list?

17 A. I don't really know the process that we go  
18 through.

19 Q. It's not part of your responsibilities as  
11:40 20 CTO?

21 A. No.

22 Q. Does Mr. Garlinghouse have a role in that  
23 process?

24 A. Well -- I mean, theoretically,  
11:40 25 Mr. Garlinghouse as CEO could control any process that

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11:40 1 he wants, but my knowledge of that process is that  
2 either [REDACTED] -- whose last name I forgot -- or [REDACTED]  
3 [REDACTED] would make a recommendation.

4 And then generally, the recommendation would  
11:41 5 generally -- would -- generally, there wouldn't be  
6 pushback on a -- on the recommendation. There would be  
7 no reason.

8 Q. Recommendation to whom?

9 A. You know, I don't -- I don't really know.

11:41 10 Q. Okay. Before Ripple put someone on the dUNL,  
11 does someone at Ripple talk to the person that's -- you  
12 know, running the institution or -- or the entity that's  
13 going to run this node?

14 A. I -- I -- I assume that would happen in most  
11:41 15 cases.

16 Q. Why do you assume that?

17 A. Just seems odd for us to add them randomly  
18 without coordinating with them at all.

19 Q. And I think you said part of your role today  
11:41 20 is to make sure that -- you know, Ripple's XRP  
21 doesn't -- I'm going to paraphrase, because I don't  
22 think you used this word, but -- you know, doesn't get  
23 stolen or sort of --

24 A. Yes.

11:41 25 Q. Okay, and why does Ripple care about that?

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11:42 1 MR. CERESNEY: Objection to form.

2 THE WITNESS: So it depends on the scope  
3 of the type of incident you're talking about.  
4 For a small incident, reputational risk.

11:42 5 Obviously, for a large --

6 For a large incident -- I mean, no  
7 company would want to have a significant theft  
8 of that company's assets.

9 BY MR. TENREIRO:

11:42 10 Q. With Ripple -- with Ripple running fewer than  
11 20 percent of the validators on its own dUNL list, could  
12 the --

13 Could, in theory, the other non-Ripple validators  
14 on your list -- you know, let's say "burn" your stash --  
11:42 15 Ripple's stash -- of XRP against Ripple's will?

16 A. No.

17 Q. Why not?

18 A. Because there's no code that allows them to  
19 do that.

11:42 20 Q. Couldn't they add it and make it into an  
21 amendment first?

22 A. Sure.

23 Q. Theoretically, they could add it?

24 A. Right, they could add it, but then they would  
11:42 25 have to convince other people to add it as well.

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11:42 1 Q. Right. Ripple would not be able to stop  
2 that?

3 A. We might try.

4 We may or may not be able to stop it. It's --  
11:43 5 there's no way to know what the result of that would be.  
6 You know, just speculation. It's just speculation.

7 Q. Right.

8 A. They may or may not be successful in that  
9 attempt. There may be pushback. There may not be.

11:43 10 Q. But they have the votes to do it?

11 A. But if you don't need the votes -- the votes  
12 don't help, right? The votes don't help to change the  
13 rules.

14 Changing the rules requires making a change in the  
11:43 15 software and then convincing exchanges and other people  
16 to run that changed software. They may or may not be  
17 successful in that effort, just as Ripple may or may not  
18 be successful in that effort.

19 Q. But if they have 80 percent of the votes that  
11:43 20 you trust, that Ripple trusts, can't they put in the  
21 change in the software?

22 A. But that doesn't mean other people put the  
23 change in the software.

24 Q. So they would fork the ledger?

11:43 25 A. They would fork themselves, yes.

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11:43 1 Q. Those 80 percent would fork themselves?

2 A. Exactly.

3 Q. What steps, if any, does Ripple take to  
4 prevent that from happening?

11:43 5 MR. CERESNEY: Objection to form.

6 THE WITNESS: If you hypothesize a change  
7 that the other validators wanted to make that  
8 Ripple did not want to make, and you --

9 I mean, hypothetically, Ripple could take  
11:44 10 a number of steps from advocating against the  
11 process -- I know theoretically even to try  
12 legal action against them, I suppose.

13 There's a variety of things that Ripple  
14 could attempt to stop them.

11:44 15 BY MR. TENREIRO:

16 Q. Could the 80 percent of validators on your  
17 list modify the rules that currently apply to Ripple's  
18 time release of XRP?

19 MR. CERESNEY: Objection.

11:44 20 BY MR. TENREIRO:

21 Q. Colloquially known as the "escrow," but --

22 A. They could propose modification.

23 Again, if they actually activated the modification,  
24 then anybody who didn't modify their own code would

11:44 25 fork. That would -- that would cause a fork.

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11:44 1 Q. You mentioned the exchanges would have to  
2 implement that software change. The exchanges are  
3 running -- you mean the ones running validator nodes?

4 A. No.

11:44 5 Q. Why would the exchanges have to implement  
6 that software change?

7 A. They currently have no code to allow you to  
8 burn Ripple's XRP or change the escrow, so they wouldn't  
9 understand that change.

11:45 10 They would just disagree with those validators, and  
11 if they disagree with -- we presume they run the default  
12 UNL, so now you have a server that disagrees with 80  
13 percent of its validators.

14 (Thereupon, an informal discussion was  
11:45 15 held off the record with the shorthand  
16 reporter.)

17 THE WITNESS: You have a server that  
18 disagrees with 80 percent of its validators.

19 It needs to agree with 80 percent of its  
11:45 20 validators to make forward progress, so it's  
21 halted permanently until there's some external  
22 given resolution. Sorry. I apologize.

23 (Thereupon, an informal discussion was  
24 held off the record with the shorthand  
11:45 25 reporter.)

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11:45 1 BY MR. TENREIRO:

2 Q. I just -- I understand all that.

3 What I don't understand is what role do the  
4 exchanges play if they are not running validator nodes?

11:45 5 A. If it -- so imagine -- let's walk through  
6 your hypothetical. So somebody proposes this change  
7 that Ripple objects to. They make the change to the  
8 software.

9 The exchanges don't accept the change to the  
11:45 10 software. Eighty percent of the validators activate the  
11 change. All of the exchanges halt. That's the end  
12 result.

13 Q. Yeah.

14 A. That hasn't successfully made the change.  
11:45 15 That's just successfully halted the network. Now  
16 they have to convince the validators to make that  
17 change.

18 Q. And the exchanges have to run the updated  
19 software to interact with the XRP Ledger, in other  
11:46 20 words?

21 A. To continue, yes. That's right.

22 Q. Even though they're not --

23 Even though they are not running validators, they  
24 still need to have the most -- they still need to have  
11:46 25 the same software that everyone else is using to

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11:46 1 continue operating on that ledger?

2 A. They have to understand the system's rules.  
3 If there's a rule change that they -- they don't know  
4 what that rule change -- they literally just say, "I  
11:46 5 don't know what rules are," and so they can't --

6 They can't even understand -- the rule change could  
7 be anything, and so they don't know what it is, and so  
8 there's simply no way they could make any progress.

9 MR. CERESNEY: You have to slow down for  
11:46 10 the court reporter.

11 THE WITNESS: Sorry.

12 (Thereupon, an informal discussion was  
13 held off the record.)

14 BY MR. TENREIRO:

11:46 15 Q. Let's talk about my hypothetical, and the  
16 rule change in my hypothetical is something that would  
17 permit 80 percent to burn and destroy Ripple's XRP  
18 holdings.

19 A. Right.

11:46 20 Q. Do you have -- as part of your --

21 As a part of your function to protect Ripple's XRP  
22 holdings, have you developed any theories as to whether  
23 the changes would accept any such amendment to the code?

24 MR. CERESNEY: Objection to form.  
25

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11:47 1 BY MR. TENREIRO:

2 Q. I'm asking you for your own theories, not  
3 what other people think.

4 A. My expectation would be that they would not.

11:47 5 Q. Why?

6 A. Because radical changes that upset settled  
7 expectations are generally considered undesirable, but  
8 you would have to flush out the hypothetical. Like if  
9 you flush out the hypothetical in which that would  
11:47 10 happen, it's possible that would change, if it just came  
11 up out of the blue today.

12 I would expect everybody in the community would  
13 push back against any radical change without any sort of  
14 justification. There's a huge bias against change.

11:47 15 Q. So is it fair to say that it's a settled  
16 expectation that Ripple has the XRP that it has today?  
17 That's a settled expectation in the community?

18 MR. CERESNEY: Objection, form and  
19 speculation.

11:48 20 MR. TENREIRO: No, his understanding. No  
21 speculation.

22 MR. CERESNEY: You're asking him what the  
23 community thinks.

24 BY MR. TENREIRO:

11:48 25 Q. You're part of the XRP Ledger community,

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11:48 1 right?

2 A. I don't think people would expect that to  
3 change.

4 Q. Okay, and --

11:48 5 Okay. Is Ripple still the largest single holder of  
6 XRP?

7 A. Yes.

8 Q. What is the financial incentive for someone  
9 to run a validator?

11:48 10 A. Generally, people would run a validator  
11 because they needed to run an XRP Ledger node anyway,  
12 like it was part of their business or part of what they  
13 were doing. The additional cost to run a validator is  
14 essentially zero.

11:48 15 Q. So, for example, an exchange might run a  
16 validator for that reason?

17 A. Right. They'd be running a server anyway in  
18 order to process transactions, and the additional cost  
19 to make it a validator is essentially zero. It's almost  
11:48 20 literally just you enter one command.

21 Q. Do you have to run a server -- do you have to  
22 run a validator? Does an exchange have to run a  
23 validator?

24 A. No.

11:48 25 Q. Okay. I'm sorry if I'm asking again. Why

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11:49 1 are you -- I know it didn't exist back then. Why don't  
2 you just use Proof of State today for the consensus  
3 mechanism?

4 (Inaudible.)

11:49 5 THE SHORTHAND REPORTER: Was that an  
6 objection?

7 MR. CERESNEY: Yes, objection to form.

8 MR. TENREIRO: We can take the exhibit  
9 down, by the way. Thank you.

11:49 10 THE WITNESS: Again, it didn't exist at  
11 the time, but Proof of Stake makes the  
12 stakeholders the people who hold the asset.

13 MR. CERESNEY: We've been going more than  
14 an hour. Is it a ripe, opportune moment?

11:49 15 MR. TENREIRO: Yeah. I'm almost done  
16 here.

17 BY MR. TENREIRO:

18 Q. All right. We talked about that.

19 Why do people use Ripple's UNL instead of somebody  
11:49 20 else's, to the extent that they do, and other than the  
21 default?

22 MR. CERESNEY: Objection to form. Are  
23 you asking him to speculate or his view?

24 MR. TENREIRO: His understanding.

11:49 25 I assume he interacts with people that

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11:49 1 are running validators or that are in the  
2 community. If that's not true, he'll let me  
3 know.

4 THE WITNESS: My understanding would be  
11:50 5 that unless they had some reason to change it,  
6 it's just easier not to change a default.

7 BY MR. TENREIRO:

8 Q. Does Ripple strongly recommend using its own  
9 dUNL?

11:50 10 MR. CERESNEY: Objection to form.

11 THE WITNESS: I don't think so.

12 BY MR. TENREIRO:

13 Q. Does Ripple recommend that people use its  
14 dUNL?

11:50 15 MR. CERESNEY: Objection to form.

16 THE WITNESS: It is our recommended -- we  
17 call it the "recommended dUNL" or the "default  
18 dUNL".

19 BY MR. TENREIRO:

11:50 20 Q. Why?

21 A. Because if you use that UNL, then you don't  
22 have to go through any additional steps. It just  
23 simplifies your decision-making.

24 Q. What do you think would happen if Ripple  
11:50 25 stopped publishing the dUNL?

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11:50 1 MR. CERESNEY: Objection.

2 BY MR. TENREIRO:

3 Q. In terms of the functionality of the  
4 blockchain?

11:50 5 MR. CERESNEY: Objection to the form.

6 THE WITNESS: I -- I think people who --  
7 people who used [REDACTED] UNL or the [REDACTED]  
8 [REDACTED] UNL wouldn't even notice.

9 People who already had a fallback UNL  
11:50 10 configured would fall back to that fallback.  
11 People who only use the default UNL would then  
12 have to make a decision as to which UNL to  
13 switch to.

14 BY MR. TENREIRO:

11:51 15 Q. Why doesn't Ripple just stop publishing a  
16 dUNL?

17 MR. GERTZMAN: Objection to form.

18 THE WITNESS: I wouldn't advocate for us  
19 to stop publishing a dUNL, because it saves --  
11:51 20 it saves developer -- it saves users the  
21 necessity of going through steps, but we could  
22 switch the default to COIL's UNL or the XRP  
23 foundation's UNL. There's no reason  
24 particularly to do.

25

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11:51 1 BY MR. TENREIRO:

2 Q. If another organization published a UNL that  
3 was used by the majority of the validators instead of  
4 the dUNL, what would be the impact on the network's  
11:51 5 consensus?

6 MR. GERTZMAN: Objection to form.

7 THE WITNESS: It would either be nothing,  
8 depending on exactly how you envision the  
9 scenario.

11:51 10 It would either be nothing or you could  
11 reach a situation where the unintentional fork  
12 protections kicked in, and then some servers  
13 would perceive the network to have halted,  
14 because they wouldn't see sufficient  
11:52 15 agreement.

16 BY MR. TENREIRO:

17 Q. Who put in the unintentional fork  
18 protections?

19 A. I believe I did.

11:52 20 Q. Right.

21 A. So they have evolved over time. I believe  
22 the first iteration of them went in at the same time the  
23 amendment process was created, but I can't place it in  
24 time better than that.

11:52 25 Q. Was it in the beginning, 2011/2012?

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11:52 1           A.     I think they were -- I think there were, but  
2 they were significantly less than they were -- than they  
3 were now. I believe that the behavior of those  
4 protections would have been more inconsistent.

11:52 5           So, for example, you might have gotten a warning,  
6 but the server might have continued operating. They  
7 were not as robust.

8           Q.     Is there any way for this distributed  
9 consensus that Ripple has described for its ledger to  
11:52 10 work without relying on someone to publish the common  
11 UNL list or having -- you know, ledger forks constantly?

12                       MR. CERESNEY: Objection to form.

13                       THE WITNESS: There has to be some  
14 mechanism for people to roughly agree on who  
11:53 15 the validators are.

16 BY MR. TENREIRO:

17           Q.     Don't they have to agree on who they trust to  
18 agreement? Isn't that what they have to agree on first?

19                       MR. CERESNEY: Objection to form.

11:53 20 BY MR. TENREIRO:

21           Q.     At least 80 to 90 percent agreement on that?

22           A.     I'm not -- not quite sure I follow.

23           Q.     Well, there has to be a mechanism for people  
24 to agree on who the validators are? That's referring to  
11:53 25 the UNL list?

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11:53 1 A. There has to be substantial agreement on the  
2 UNL. Ideally, 90 percent. 80 percent is sufficient in  
3 most practical scenarios, but 90 percent is safe.

4 Q. So how do you get to the point where people  
11:53 5 roughly agree on who the validators are? How do you  
6 achieve that?

7 A. There's two ways. The earliest way and the  
8 simplest way is just to literally directly come to that  
9 agreement. Like everybody can literally have a  
11:54 10 conversation and come up with an agreement. The problem  
11 is that it's static. It's at one point in time.

12 The better method is to agree on some number of  
13 people who will make that decision, and then, of course,  
14 you can always revise that if you're unhappy with the  
11:54 15 decision they made.

16 Q. What role does Ripple play today in ensuring  
17 that there's substantial agreement on who the validators  
18 are?

19 A. Today, Ripple publishes a UNL.  
11:54 20 And obviously, if everybody used that UNL exactly,  
21 there would be complete agreement.

22 Q. But they only need to use the 80 or 90  
23 percent?

24 A. Or they could opt to intentionally fork or  
11:54 25 they could risk an unintentional fork.

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11:54 1 Obviously, you wouldn't want to risk -- generally,  
2 you wouldn't -- obviously, the word "unintentional"  
3 generally means you don't want it. But, of course, if  
4 they wished to intentionally fork, then they would  
11:54 5 deliberately not follow it.

6 Q. Have there been forks of the Bitcoin Ledger?

7 A. Yes.

8 Q. And the Ethereum Ledger?

9 A. Yes.

11:54 10 Q. But not of the XRP Ledger?

11 A. Not unless you count Stellar, but I generally  
12 wouldn't.

13 Q. Right. Let's not count Stellar, unless you  
14 do, but my question is generally, would not --

11:55 15 A. I generally would not.

16 So as a "yes" or "no" answer, but answer would be  
17 "Not to my knowledge."

18 Q. And do you know why there's been forks of  
19 those ledgers but not this one? What's the difference  
11:55 20 or what would you attribute the difference to?

21 A. It's -- well, so one thing that I would say  
22 is the forks that we have had are Bitcoin and the  
23 Ethereum blockchain were connected to specific events  
24 that occurred, and no such event has occurred in the XRP  
11:55 25 Ledger ecosystem.

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11:55 1           There's no -- there's no real reason to fork unless  
2 there is some sort of event that triggers some sort of  
3 disagreement.

4           Q.       What was the event in the Bitcoin blockchain?

11:55 5           A.       The event in the Bitcoin blockchain was the  
6 dispute over the evolution of Bitcoin, whether bigger  
7 blocks were the step forward or whether they threatened  
8 decentralization and a segregated witness was the better  
9 path.

11:55 10          Q.       And no such dispute has arisen with this  
11 blockchain?

12          A.       Not that anyone has been willing to fork  
13 over, to my knowledge, and I would probably know if it  
14 happens.

11:56 15          Q.       So like the Checks Amendment?

16          A.       Right. There was a dispute, but -- Ripple  
17 didn't get its way, but we said whatever.

18          Q.       That's an amendment Ripple wanted at first,  
19 right?

11:56 20          A.       It's an unusual thing. We proposed it. We  
21 developed it, and then we later opposed it and it was  
22 accepted anyway.

23                   MR. TENREIRO: Okay. Let's stop here,  
24 because Andrew asked for a break.

11:56 25                   THE VIDEOGRAPHER: Okay. Going off the

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11:56 1 record at 11:56.

2 (Recess taken at 11:56 a.m.)

3 (Resumed at 12:10 p.m.)

4 THE VIDEOGRAPHER: Back on at 12:10.

12:10 5 BY MR. TENREIRO:

6 Q. Mr. Schwartz, have you ever met Jay Clayton?

7 A. Yes.

8 Q. When?

9 A. I met him twice. Once at a meeting, and once

12:10 10 I passed him in a hallway at the SEC.

11 Q. Have you ever met any other SEC commissioner?

12 A. At the time I -- I passed him in a hallway,  
13 he was with Hester Peirce.

14 Q. Did you meet her or just see her?

12:10 15 A. I said, "Hello" to Clayton, because I'd met  
16 him before. I just saw her.

17 Q. Have you ever met any other SEC  
18 commissioners?

19 A. No.

12:11 20 Q. When was the meeting with Clayton?

21 A. I don't recall the date.

22 Q. Who was there?

23 A. It's hard for me to remember, because I had  
24 two meetings with the SEC that were a couple of weeks

12:11 25 apart, and it's hard for me to separate what happened --

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12:11 1 who was at the first meeting, who was at the second  
2 meeting. I know Clayton was there.

3 I know John Roscoe, from the Office of Presidential  
4 Personnel, was there. Brad Garlinghouse, I believe, was  
12:11 5 there, and I know there were several other people from  
6 the SEC, but I couldn't tell you more detail than that.

7 Q. Anyone else from Ripple?

8 A. I -- I don't believe so.

9 Q. Lawyers from Ripple?

12:11 10 A. My recollection, which is not precise, is  
11 that we did not have counsel at that first meeting, but  
12 I'm not sure.

13 Q. The other meeting you're recalling at the  
14 SEC -- was that with staff that was conducting the  
12:12 15 investigation?

16 A. I believe -- I believe most of the people who  
17 were there were from Corp Fin, but that's the extent of  
18 my recollection.

19 Q. Were Ripple's lawyers there?

12:12 20 A. I believe we did have counsel at that  
21 meeting.

22 Q. Why did you meet with Clayton?

23 A. From my point of view, the purpose of the  
24 meeting and the reason that Brad wanted me at that  
12:12 25 meeting rather than something else was to cover

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12:12 1 technical aspect of the function of the XRP Ledger.

2 Q. Why did you want to give that presentation to  
3 Clayton? And I -- maybe I should say, "Chair Clayton"  
4 every time. Faster.

12:12 5 Why did you want to give Chair Clayton a technical  
6 presentation of the XRP Ledger?

7 A. My understanding at the -- I'm trying to  
8 remember what time period --

9 MR. CERESNEY: Actually, if you had  
12:12 10 discussions with counsel, obviously you  
11 shouldn't reveal that about the meeting. In  
12 other words, it sounds like counsel wasn't at  
13 the meeting.

14 But if you had discussions with counsel  
12:13 15 in advance of the meeting and that's the basis  
16 for the meeting, you shouldn't answer that.  
17 If there's other discussions, obviously you  
18 should go there.

19 THE WITNESS: My recollection, and I  
12:13 20 could be confusing the meeting with other  
21 meetings, but my recollection is that this was  
22 around the time that other SEC commissioners  
23 had made statements about -- about  
24 cryptocurrencies.

25

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12:13 1 BY MR. TENREIRO:

2 Q. Are you talking about the Hinman speech?

3 A. I think -- I think there was one other. I  
4 don't remember exactly.

12:13 5 Q. Are you aware whether Hinman was a  
6 commissioner or just a division director? Do you know  
7 the difference?

8 A. I don't know the difference.

9 Q. Why was John Roscoe at the meeting? What  
12:13 10 role did he have in procuring it?

11 A. I don't know.

12 Q. Do you know why he was there?

13 A. I don't.

14 Q. Did you take notes at the meeting?

12:14 15 A. I did not.

16 Q. Did Mr. Garlinghouse?

17 A. I don't recall.

18 Q. Did you observe anyone taking notes?

19 A. Not that I recall.

12:14 20 Q. The time of the meeting were you aware SEC  
21 staff was investigating XRP's status under the security  
22 laws?

23 A. I was either aware at that time or shortly  
24 thereafter. I am not positive.

12:14 25 Q. Was the meeting with Chair Clayton relating

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12:14 1 to this?

2 MR. CERESNEY: Relating to what.

3 BY MR. TENREIRO:

4 Q. The SEC staff's investigation as to XRP's  
12:14 5 status under the securities laws.

6 A. Again, because I can't separate the two meet  
7 beings, I can't say for sure. I know that was discussed  
8 at one of those two meetings, but I'm pretty sure that  
9 was the second one.

12:14 10 Which doesn't necessarily mean it wasn't discussed  
11 at the first one, but I can't -- I can't recall.

12 Q. Okay. Second meeting, just to be clear, is  
13 the Corp Fin meeting?

14 A. Yes.

12:14 15 Q. What did you say at the meeting with Chair  
16 Clayton?

17 A. My recollection is that I discussed the role  
18 of the validators, the status of the XRP Ledger network,  
19 some of the history of the company, and that's all I  
12:15 20 recall.

21 Q. What did Mr. Garlinghouse say at the meeting?

22 A. I don't recall.

23 Q. Did Mr. Clayton speak at the meeting? Chair  
24 Clayton?

12:15 25 A. My recollection is that he spoke very little,

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12:15 1 but that he did speak occasionally.

2 Q. Who else spoke that was not Chair Clayton,  
3 Garlinghouse, and yourself?

4 A. I don't have any specific recollection of who  
12:15 5 else spoke at that meeting. Again, it's hard for me,  
6 because I can't separate whether recollections I have of  
7 people speaking were from the first or the second  
8 meeting.

9 Q. But just to be clear, you don't recall Chair  
12:15 10 Clayton being at the second meeting?

11 A. I don't believe he was.

12 Q. And no -- and Commissioner Peirce was not at  
13 the second meeting?

14 A. No.

12:15 15 Q. Not at the first meeting either?

16 A. No.

17 Q. Have you heard of Commissioner Roisman?

18 A. I believe have heard that name.

19 Q. Does that you haven't met him?

12:16 20 A. I don't believe so.

21 Q. Have you ever spoken to him?

22 A. No.

23 Q. At the meeting with Chair Clayton, did he  
24 comment on the status of the SEC's investigation into  
12:16 25 Ripple's conduct?

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12:16 1 A. Not that I recall.

2 Q. Did you discuss legal issues at that meeting?

3 A. I know we discussed them at the second  
4 meeting. I don't recall discussing them at the first  
12:16 5 meeting.

6 Q. You don't recall discussing them at the first  
7 meeting, but it's possible you did, or your recollection  
8 is that you did not discuss them at the first meeting?

9 A. It's possible that we did. I just don't  
12:16 10 specifically recall.

11 Q. Did Chair Clayton comment on the legal status  
12 of XRP under the securities laws at that meeting?

13 A. I don't specifically recall him commenting.

14 Q. Did he convey any of the other commissioners'  
12:16 15 views as to the status of XRP under securities laws?

16 (Thereupon, an informal discussion was  
17 held off the record with the shorthand  
18 reporter.)

19 BY MR. TENREIRO:

12:16 20 Q. Did he convey to you any of the other  
21 commissioners' views as to the status of XRP under the  
22 securities laws?

23 A. Not that I recall.

24 Q. Did he convey to you any SEC staff members'  
12:17 25 views as to the status of XRP under the securities laws?

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12:17 1 A. Not that I recall.

2 Q. Did Chair Clayton offer you assurances that  
3 he had concluded that XRP was not a security?

4 A. Not that I recall.

12:17 5 Q. Would you recall something like that?

6 A. That I think I would recall.

7 Q. I'm asking you again:

8 Did he offer you assurances that he had concluded  
9 that XRP was not a security?

12:17 10 MR. CERESNEY: Objection, asked and  
11 answered.

12 THE WITNESS: I don't recall one.

13 And I think if he did, I would have  
14 recalled it, but I don't recall.

12:17 15 BY MR. TENREIRO:

16 Q. Did he ask any questions? Did he ask you any  
17 questions?

18 A. I believe he did participate in some of the  
19 technical questions that were asked.

12:17 20 Q. Do you remember the questions?

21 A. I remember the scope was -- involved things  
22 like the volume of validators, the status of the XRP  
23 Ledger, the history of the company. I don't recall any  
24 more details than that.

12:17 25 Q. Did he ask Mr. Garlinghouse questions?

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12:17 1 A. I'm sure he must have, but I don't recall  
2 any.

3 Q. Did you arrive --  
4 Did the meeting commence when you and  
12:18 5 Mr. Garlinghouse were both already there?

6 (Pause.)

7 THE WITNESS: I think so, but I'm not  
8 sure.

9 BY MR. TENREIRO:

12:18 10 Q. Did you both leave together, Mr. Garlinghouse  
11 and you?

12 A. Yes.

13 Q. Is there a document that would refresh your  
14 memory as to what was said at the meeting?

12:18 15 A. Not that I know of.

16 Q. Did you have notes in advance of the meeting?

17 A. I did not.

18 Q. Did you have talking points?

19 A. Not that I recall.

12:18 20 Q. Did you have anyone prepare talking points  
21 for you?

22 A. I don't recall having any specific talking  
23 points that were communicated to me prior to that  
24 meeting by anyone.

12:18 25 Q. Okay. Who had the idea for the meeting?

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12:18 1 MR. CERESNEY: Again, if you had  
2 discussions with counsel, obviously don't  
3 reveal that.

4 THE WITNESS: My understanding at the  
12:18 5 time, and I don't recall what it was based on,  
6 was that Brad Garlinghouse wanted me at the  
7 meeting to answer questions about the early  
8 history of the company and the technical  
9 status of the XRP Ledger and the network, but  
12:19 10 I don't know other than that.

11 BY MR. TENREIRO:

12 Q. Well, in the context of Mr. Garlinghouse  
13 expressing to you that he wanted you at the meeting to  
14 answer questions, technical questions, did express to  
12:19 15 you why he wanted -- why he wanted to have that meeting?

16 A. I don't recall him specifically mentioning  
17 some objective for that meeting.

18 Q. All right. Now, let's go back to the  
19 technical stuff. Exhibit 77.

12:19 20 (Thereupon, a document entitled "Technical  
21 FAQ - XRPL.org" was introduced as DS Exhibit 77  
22 for identification.)

23 BY MR. TENREIRO:

24 Q. Exhibit 77. Oh, yeah. Did you debrief with  
12:19 25 other people at Ripple after the meeting about what had

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12:19 1 happened at the meeting?

2 A. I believe Brad made a brief summary to  
3 staff -- staff meeting, his direct reports.

4 Q. That included you at that time, already?

12:20 5 A. I think at that time, it didn't. I think  
6 that was in that window where I was still reporting  
7 to -- you know, I'm -- no, I think I did report to Brad.

8 Otherwise, I wouldn't -- I probably wouldn't have  
9 remembered that because I wouldn't have been in the  
12:20 10 meeting, so prob- -- I have to infer based on fragmented  
11 recollection, but I believe he made a report to staff  
12 just summarizing the meeting.

13 Q. What did he say in the summary?

14 (Pause.)

12:20 15 BY MR. TENREIRO:

16 Q. Was it written or verbal?

17 A. Verbal.

18 Q. Okay. Do you recall what he said?

19 A. I recall the gist of what he said was that he  
12:20 20 stated that the meeting had taken place, identified who  
21 went to the meeting and -- you know, stated that he was  
22 satisfied.

23 You know, he thought the meeting went well. Just  
24 general words to that effect. I don't recall any  
12:20 25 specific comments about the details of the meeting.

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12:20 1 Q. Did he make any comments about his expected  
2 outcome of the SEC's investigation based upon the  
3 conversation that occurred at the meeting?

4 A. I don't remember anyone discussing an  
12:21 5 expectation of any specific results of that particular  
6 meeting.

7 Q. Okay. Exhibit 77.

8 (Thereupon, an informal discussion was  
9 held off the record.)

12:21 10 BY MR. TENREIRO:

11 Q. First, I wanted to ask you if XRPL.org is a  
12 Ripple website.

13 A. I believe it originally was, and I think now  
14 it's joint -- it's -- I think now the XRPL Foundation  
12:21 15 has some level of control over it. I don't know where  
16 it is now.

17 Q. When did that change?

18 A. Within the past couple months.

19 Q. Last couple of months?

12:22 20 A. I think. I'm not exactly sure.

21 Q. So it's not years?

22 A. No, I don't believe so.

23 Q. Okay. Do you have any input into the content  
24 of this technical FAQ?

12:22 25 A. Yes.

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12:22 1 Q. What is your input?

2 A. I didn't write it, but I reviewed and  
3 discussed its content with other people.

4 Q. And is it fair to say that the language in  
12:22 5 the technical FAQ has changed over the years?

6 A. I suspect so.

7 Q. Okay. This is --  
8 I printed this last night, in fact, so it's perhaps  
9 the most current one. The question that says "Which UNL  
12:22 10 should I select?" -- one of the things that it says  
11 there is:

12 "Currently, Ripple provides a default and  
13 recommended list which we expand based on watching the  
14 history of validators run by Ripple and third parties."

12:22 15 MR. CERESNEY: You skipped the first  
16 sentence, didn't you?

17 MR. TENREIRO: Yes, I did. I was just  
18 focusing on that second sentence.

19 BY MR. TENREIRO:

12:23 20 Q. Are there other criteria that Ripple utilizes  
21 other than the history of validators to recommend?

22 A. I believe the other -- there are other  
23 criteria that we use, yes.

24 Q. What are they?

12:23 25 A. Some sort of institutional commitment to

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12:23 1 running the validator. There was one other -- it's  
2 slipping any mind right now, but I mentioned it earlier.

3 Q. Okay. That's fine. If you recall, just let  
4 me know.

12:23 5 A. Yeah.

6 Q. I know you mentioned something else earlier.

7 A. Yeah.

8 Q. I also can't remember.

9 "What is the validator incentive structure for  
12:23 10 validators not run by Ripple?" Do you see that  
11 question?

12 A. Yes.

13 Q. It says:

14 "The primary incentive to run a validator is to  
12:23 15 preserve and protect the stable and sensible evolution  
16 of the network."

17 A. Uh-huh.

18 MR. CERESNEY: "Stable operation."

19 MR. TENREIRO: Huh?

12:24 20 MR. CERESNEY: You skipped the word  
21 "operation," but go ahead.

22 BY MR. TENREIRO:

23 Q. Okay. "The stable operation and sensible and  
24 evolution of the network." I guess I don't understand  
12:24 25 what that means.

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12:24 1           Why would someone care about protecting the stable  
2 operation and sensible evolution of the network?

3           A.     Well, one example would be if they're an  
4 exchange and they make revenue of XRP.

12:24 5                     (Thereupon, an informal discussion was  
6 held off the record with the shorthand  
7 reporter.)

8                     THE WITNESS: If they run an exchange,  
9 their revenue depends on the stable operation  
12:24 10 of the ledger.

11 BY MR. TENREIRO:

12           Q.     Maybe I should have just continued reading,  
13 where you say:

14                     "It is the validators who decide the evolution of  
12:24 15 the XRP Ledger, so any business that uses or depends on  
16 the XRP Ledger has an inherent incentive to assure the  
17 reliability and stability of the network."

18           Is that what you mean, for example, the exchanges?

19           A.     Yes.

12:24 20           Q.     So what businesses might depend on the XRP  
21 Ledger?

22           A.     Well, exchange is obviously anyone else who  
23 uses the XRP Ledger, people who use the decentralized  
24 exchange.

12:25 25           Q.     Well, I -- is "in use" and "depending" two

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12:25 1 different things, though?

2 Like the exchanges don't -- they depend on the XRP  
3 Ledger for their XRP-related revenue, correct, but they  
4 can presumably --

12:25 5 A. Find other revenue.

6 Q. So wouldn't you say --

7 Isn't it fair to say the exchanges use the ledger  
8 as opposed to depend on the ledger?

9 A. I would say their XRP revenue depends on the  
12:25 10 ledger.

11 Q. Okay. Are there entities that depend on the  
12 XRP other than the exchanges?

13 A. There are -- there are companies that are  
14 built around the utility of the XRP Ledger while a  
12:25 15 provider's -- uh, gateways -- those types of businesses  
16 are exclusively focused or at least primarily or  
17 significantly focused on the XRP Ledger, so I don't  
18 think you could argue that they are not depending on  
19 them.

12:25 20 Q. No. Sure. I didn't mean to. I'm trying to  
21 get an example.

22 So right now, I've heard businesses that depend on  
23 the revenue --

24 A. Right.

12:26 25 Q. -- from dealing with the XRP Ledger. Is

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12:26 1 there any other type of entity that might be  
2 incentivized or is it always a monetary incentive?

3 A. I think there are definitely individuals or  
4 enthusiasts, power users who run validators just because  
12:26 5 they find it interesting technically.

6 It may be connected with things they are doing  
7 professionally or it may not, and they definitely have  
8 run validators.

9 Q. Yeah, but my question is:  
12:26 10 Are they incentivized to ensure that the network --  
11 you know, continues to function?

12 A. I think you can argue if a person does  
13 something, they are necessarily incentivized to some  
14 extent; maybe their intellectual curiosity or maybe that  
12:26 15 it facilitates some other project they are doing. Hard  
16 to know what might incentivize other people.

17 Q. Are any of those people on Ripple's dUNL  
18 list?

19 A. I believe there is at least one or two.

12:26 20 Q. Who are they?

21 A. I would have to see the list to tell you, but  
22 I'm trying to remember the name of the company.

23 (Thereupon, an informal discussion was  
24 held off the record.)

12:27 25 THE VIDEOGRAPHER: Going off at 12:27.

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12:27 1 (Recess taken at 12:27 p.m.)

2 (Resumed at 12:31 p.m.)

3 THE VIDEOGRAPHER: Back on at 12:31.

4 BY MR. TENREIRO:

12:32 5 Q. Right. So the recollection is not refreshed  
6 from looking at the list?

7 A. No. Thought it would be, but no.

8 Q. Okay. Ripple's -- so here, we were talking  
9 about the incentives that people might have to preserve  
12:32 10 and protect the stable operation and sensible evolution  
11 of the network.

12 What are Ripple's incentives? Does Ripple have  
13 incentive to do that, preserve and protect, etc.?

14 A. Yes.

12:32 15 Q. And what are the nature of the incentives?

16 A. The nature of the incentive is that Ripple  
17 holds a lot of XRP.

18 Q. What about reputational incentives?

19 A. Yeah, there are reputational incentives as  
12:32 20 well.

21 Q. If the network -- you know.

22 Presumably, if the network performed poorly --  
23 however you define that -- that wouldn't look good for  
24 the company; fair to say?

12:32 25 MR. CERESNEY: Objection to form.

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12:32 1 MR. TENREIRO: Sorry, Daphna.

2 THE WITNESS: I think people would --  
3 whether they should or shouldn't, I think  
4 people would perceive that as at least  
12:32 5 dishonest and a failing on Ripple's part.

6 BY MR. TENREIRO:

7 Q. And there's been occasions when the network  
8 has stalled and people have called on Ripple to sort of  
9 fix it, right?

12:33 10 MR. CERESNEY: Objection to form.

11 THE WITNESS: Not really. I don't think  
12 so.

13 BY MR. TENREIRO:

14 Q. Have there been occasions where exchanges --  
12:33 15 you know, come to Ripple for issues they are having  
16 with -- interact with the ledger?

17 A. With their own interactions with the ledger,  
18 yes.

19 Q. Why do they come to Ripple?

12:33 20 MR. CERESNEY: Objection. Objection to  
21 form.

22 THE WITNESS: We provide -- we provided a  
23 pathway for them to easily contact -- you  
24 know, employees that we have who have  
12:33 25 expertise.

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12:33 1 BY MR. TENREIRO:

2 Q. Does anyone else provide that pathway or  
3 platform?

4 A. I believe so.

12:33 5 Q. Who?

6 A. I believe there are two companies, whose  
7 names -- same companies, I'm trying -- I was trying to  
8 recall well. I think is [REDACTED], and the  
9 other --

12:33 10 (Thereupon, an informal discussion was  
11 held off the record with the shorthand  
12 reporter.)

13 THE WITNESS: [REDACTED]. I could be  
14 wrong, and the other one is -- what's the name  
12:34 15 of the company? I can't remember the -- the  
16 name of the company, but I know one of their  
17 products is called [REDACTED] and they  
18 also provide that type of expertise.

19 BY MR. TENREIRO:

12:34 20 Q. And do you --

21 Tell me the names of the individuals who have your  
22 level of expertise on the XRP Ledger.

23 A. Put a small number of people. [REDACTED],  
24 [REDACTED].

12:34 25 (Thereupon, an informal discussion was

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12:34 1 held off the record.)

2 THE WITNESS: [REDACTED].

3 BY MR. TENREIRO:

4 Q. [REDACTED] work at Ripple?

12:34 5 A. Yes, [REDACTED] works at Ripple.

6 Q. Who was the next one?

7 A. [REDACTED].

8 Q. Another Ripple employee? Oh, [REDACTED]

9 A. No, his -- he has -- the company's name, I  
12:34 10 can't remember. There are at least three other people  
11 who I know whose names I can't recall.

12 Q. They are not Ripple employees?

13 A. Non-Ripple, yeah.

14 Q. It's your belief that they have the same  
12:35 15 level of technical expertise over the ledger that you  
16 do?

17 A. It gets tricky because I have more knowledge  
18 in some areas and less knowledge in other areas, but I  
19 would say they -- they have -- they -- without trying to  
12:35 20 directly compare them to me or saying greater or less  
21 than, they certainly have enough knowledge to do any --  
22 anything you needed them to do on the XRP Ledger.

23 Q. Going back to the exhibit, you say -- I'm  
24 still on the question about what is the validator  
12:35 25 incentive structure. You say:

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12:35 1 "Ripple avoids paying XRP as a reward for operating  
2 the validator so that such incentives do not warp the  
3 behavior of validators."

4 A. Yes.

12:35 5 Q. How -- in paying them XRP as a reward, would  
6 that be a financial payment or incentive?

7 A. It could be. If they -- if they could sell  
8 it, it would be a financial incentive.

9 Q. XRP has a market price today, right?

12:36 10 A. Yes, at this time, yes.

11 Q. Why would rewarding them with financial  
12 compensation warp their behavior?

13 A. Because they would be incentivized to  
14 continue to act to continue to receive that compensation  
12:36 15 rather than follow their own -- their own incentives or  
16 interests.

17 Q. So Ripple wants to reward -- wants to  
18 encourage them to follow their own incentives or  
19 interests?

12:36 20 A. Yes.

21 Q. Doesn't Ripple have financial relationships  
22 with some of the validators on their UNL list such as

23 

24 A. Some of them, yes.

12:36 25 Q. How many of them?

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12:36 1 A. I don't know.

2 Q. It more than half?

3 A. I think so, but I don't know.

4 MR. CERESNEY: Objection to form.

12:36 5 BY MR. TENREIRO:

6 Q. On the next page, it says "Role of XRP. Why  
7 does Ripple use XRP holdings?"

8 A. Yes.

9 Q. "Ripple's XRP holdings incentivize the  
12:37 10 company to make the XRP Ledger as useful as possible."

11 Is that referring to what we discussed a second ago  
12 about the nature of Ripple's incentives?

13 A. I'm not really sure.

14 Q. So what does it refer to?

12:37 15 A. Again, I'm not really sure.

16 Q. Okay.

17 (Pause.)

18 (Thereupon, a two-page GitHub printout was  
19 introduced as DS Exhibit 11 for identification.)

12:37 20 BY MR. TENREIRO:

21 Q. Let's look at Exhibit 11, please. This is a  
22 GitHub format, and Ripple's source code for the ledger  
23 is on GitHub, right?

24 A. Yes.

12:38 25 (Thereupon, an informal discussion was

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12:38 1           held off the record with the shorthand  
2           reporter.)  
3 BY MR. TENREIRO:  
4           Q.     The question is: Do you recognize this text  
12:38 5 file?  
6           A.     Yes.  
7           Q.     What is it?  
8           A.     This is the text file that selects the --  
9           that will select the UNL and this is the default version  
12:38 10 of that file.  
11          Q.     The part of the text -- sorry, the part of  
12          the file that selects the UNL is line 55 through 59?  
13          A.     That's correct.  
14          Q.     The rest is just commentary?  
12:38 15          A.     Yes.  
16          Q.     Who wrote the commentary?  
17          A.     I would have to check the GitHub history to  
18          tell you for sure, but -- yeah, I don't know.  
19          Q.     At the bottom, on line 27 through line 31 --  
12:39 20          A.     Uh-huh.  
21          Q.     -- it says "List of URIs serving list for  
22          recommended validators."  
23          A.     Uh-huh.  
24          Q.     Then it has examples: "Ripple, [REDACTED] and  
12:39 25 then two -- what are the other two? Are those just

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12:39 1 local --

2 A. Yeah. The two are examples of how the person  
3 who fill out that field if they wanted to do it to  
4 provide their own UNL rather than pull it from somebody  
12:39 5 else.

6 Q. Why does Ripple provide its examples from  
7 Ripple and [REDACTED] recommended lists?

8 A. Probably because those were the two that we  
9 were specifically aware of at that time.

12:39 10 Q. Okay. On lines 49 to 53, there's a warning  
11 that says:

12 "Changing these values could cause your rippled  
13 instances to see a validated ledger that contradicts  
14 other rippled instances validated ledgers."

12:39 15 I'm going to stop there. What does "rippled  
16 instance" mean?

17 A. That means a node on the XRP Ledger.

18 Q. And then continuing:

19 "a/k/a a ledger fork, if your validator lists do  
12:39 20 not sufficiently overlap with the lists used by others."  
21 Do you see that?

22 A. Yes.

23 Q. Is this what you were referring to about the  
24 need to have 80 to 90 percent overlap?

12:40 25 A. Yes.

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12:40 1 Q. At first, you concluded it was about 20  
2 percent, right?

3 A. Depends on the scenario you're trying to  
4 prevent. If you're trying to prevent non-operation or  
12:40 5 if you're trying to prevent a full unintentional fork.

6 (Thereupon, an informal discussion was  
7 held off the record.)

8 BY MR. TENREIRO:

9 Q. If you're trying to prevent non-operation,  
12:40 10 what overlap do you need?

11 A. You need more than 20 percent.

12 Q. If you were trying to prevent an  
13 unintentional fork?

14 A. I'm sorry. I got it backward.

12:40 15 Q. Yeah.

16 A. If you're trying do prevent non-operation,  
17 you need for practical purposes you need the a lease 80  
18 percent. You can argue 90.

19 To prevent non-operation, you want more than 20  
12:40 20 percent.

21 Q. Ripple wants to prevent non-operation,  
22 correct?

23 A. We -- we don't want people to get  
24 non-operation unless -- under circumstances in which  
12:40 25 they haven't specifically chosen not to operate.

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12:41 1 We do want people to get non-operation if the  
2 software is operating in ways they don't want did to  
3 operate. That's a critical system safety.

4 Q. That's fair. Your conclusion about the 20  
12:41 5 percent overlap was in the whitepaper for the ledger, is  
6 that correct?

7 A. I believe so. That paper is more concerned  
8 with avoiding an unintentional fork than it is with  
9 preventing non-operation, but I believe it does discuss  
12:41 10 both scenarios.

11 Q. The whitepaper now has a disclaimer on it  
12 that it's essentially outdated?

13 A. Yes.

14 Q. Why was that disclaimer put on it?

12:41 15 A. After the paper was -- well, so our  
16 understanding in the space has been constantly evolving.  
17 This is brand-new technology.

18 [REDACTED] found some defects in the analysis  
19 in that paper, and so we revised the analysis.

12:41 20 Q. Does that defect have to do with the  
21 percentage of overlap?

22 A. It does.

23 Q. Was [REDACTED] also involved in finding that  
24 defect?

12:41 25 A. Yes, yes.

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12:41 1 (Thereupon, a multi-page document entitled  
2 "The Ripple Protocol Consensus Algorithm" was  
3 introduced as DS Exhibit 14 for identification.)

4 BY MR. TENREIRO:

12:41 5 Q. Let's look at Exhibit 14. I just want you to  
6 tell me if this is the whitepaper we've been discussing.

7 A. This is the original whitepaper.

8 Q. With the disclaimer, right?

9 A. Yes.

12:42 10 Q. That's the first page?

11 A. Yes.

12 (Thereupon, an informal discussion was  
13 held off the record.)

14 BY MR. TENREIRO:

12:42 15 Q. So Mr. Schwartz, this is the whitepaper we've  
16 been discussing?

17 A. Yes.

18 Q. You are one of the authors?

19 A. Yes.

12:42 20 Q. Where was this published?

21 A. I believe it was published to arXiv.

22 A-R-X-I-V.

23 Q. Was it published before or after the XRP  
24 Ledger was deployed publicly?

12:43 25 A. I think after, but I'm not certain.

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12:43 1 Q. Do you know how much after?

2 A. I don't.

3 Q. Okay. "Section 3.3, Agreement."

4 Is that the section that discusses your proof or  
12:43 5 your, I guess, theory as to how much overlap is  
6 required?

7 A. Yes.

8 Q. And you're saying this is with respect to  
9 unintentional forks?

12:43 10 A. This is with respect to unintentional forks,  
11 correct.

12 Q. Okay, and your analysis was not -- you know,  
13 probability-based? It was not probabilistic?

14 A. Right.

12:43 15 Q. Okay, and [REDACTED] was?

16 A. We -- we connected two analyses. This one  
17 was not intended to be probabilistic. The next one --  
18 the subsequent one had both the probabilistic and the  
19 non-probabilistic anal- -- as -- as -- as I understand  
12:43 20 it.

21 I'd have to look it to be sure, but I believe the  
22 subsequent one had both probabilistic and  
23 non-probabilistic analyses.

24 Q. You still concluded it was only 20 percent?

12:43 25 A. Twenty percent is enough to -- you know what?

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12:43 1 I'm not sure. I'm not sure.

2 Q. Did you publish another whitepaper?

3 Is that what you mean, or are you referring to the  
4 [REDACTED] paper?

12:44 5 A. I am referring to the [REDACTED]  
6 paper --

7 Q. Let's look at that.

8 A. -- but I don't recall.

9 (Thereupon, a multi-page document entitled  
12:44 10 "Analysis of the XRP Ledger Consensus Protocol"  
11 dated February 21, 2018" was introduced as DS  
12 Exhibit 15 for identification.)

13 BY MR. TENREIRO:

14 Q. Let's just look at 15, please. Exhibit 15.

12:44 15 The summary probably has what you're looking for --

16 A. Yeah.

17 Q. -- and so does Theorem 8, on page 18.

18 A. Yeah.

19 Q. What role, if any, did you play with respect  
12:44 20 to putting together this paper?

21 A. Almost none.

22 Q. Okay. They discussed it with you, though?

23 A. Yes.

24 Q. Okay. Were you surprised to find they  
12:45 25 concluded, contrary to your conclusion, that they needed

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12:45 1 over 90 percent?

2 A. Yes, I was.

3 Q. Do you agree with them?

4 A. Yes.

12:45 5 Q. Okay, and so --

6 Is it fair to say that you remain as probabilistic,  
7 by looking at it?

8 A. Yeah. Let me -- let me -- let me be precise.

9 Q. Yes.

12:45 10 A. I still believe that sort of for practical  
11 purposes, 20 percent and 80 percent is sufficient,  
12 but -- but there are --

13 You can carefully construct scenarios in which that  
14 fails, and obviously, you would prefer a

12:45 15 non-probabilistic guarantee. An absolute, rigid,  
16 mathematical proof would be better than a probabilistic  
17 guarantee.

18 Q. But with a large number of nodes, that  
19 becomes hard, right?

12:45 20 A. The probabilistic proof -- the probabilistic  
21 proofs become more valid.

22 Q. Right. It's harder to have a  
23 non-probabilistic --

24 A. Right.

12:45 25 Q. -- with -- with more nodes?

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12:45 1 A. Exactly.

2 Q. So the probabilistic ones become,  
3 essentially, more reliable?

4 A. Yes.

12:45 5 Q. Okay, and just to take it back there again,  
6 is it fair to say Ripple wants there to be -- you know,  
7 continuous operation of the network?

8 MR. CERESNEY: Objection to form.

9 THE WITNESS: Yes.

12:46 10 BY MR. TENREIRO:

11 Q. And not --

12 And Ripple wants to prevent -- you know,  
13 undesirable -- the term you used was "unintentional  
14 forks"?

12:46 15 A. Yes.

16 Q. Okay, so is it fair to say that it is  
17 Ripple's desire that for this ledger to operate, there  
18 be somewhere between 80 and 90 percent of overlap  
19 between the nodes on the UNL list that people are using?

12:46 20 A. For those people who wish to continue to  
21 transact on that ledger stream, yes.

22 Q. On the ledger stream that Ripple wants to  
23 continue to transact in, right?

24 A. Yes.

12:46 25 Q. That includes the exchanges, presumably?

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12:46 1 A. Yes.

2 Q. Okay. Did you ever -- did you ever --

3 Has the ledger moved to an alternative consensus  
4 algorithm called Cobalt?

12:46 5 A. No.

6 Q. Why not?

7 A. Part of -- well, there are a couple reasons.

8 One of them is it's a complex algorithm. It's just  
9 a -- it's just a complex and dangerous transition.

12:47 10 Q. Okay. Don't make it harder for me. Let's  
11 leave it at that. Let's move on.

12 (Thereupon, a three-page e-mail dated

13 4/16/19 from David Schwartz to [REDACTED]

14 was introduced as DS Exhibit 18 for

12:47 15 identification.)

16 BY MR. TENREIRO:

17 Q. Let's take a look at Exhibit 18, please.

18 So Exhibit 18 is an e-mail chain where you appear  
19 to be answering questions by [REDACTED]. Is that the

12:48 20 [REDACTED] you mentioned earlier?

21 A. I think the questions came from [REDACTED]

[REDACTED] --

23 Q. Sorry.

24 A. -- but I'm not sure.

12:48 25 Q. Fair enough. The e-mail chain is between you

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12:48 1 and [REDACTED]?

2 A. Yes, that's correct.

3 Q. Here, you say toward the bottom:

4 "Ripple's recommended UNL has been changing every  
12:48 5 three weeks or so."

6 A. Yes.

7 Q. Why was it changing so often?

8 A. Well, when you publish a UNL, you have to set  
9 an expiration date. You don't want to set an expiration  
12:48 10 date that's too long, because if something goes wrong,  
11 you can't change it.

12 And you don't want it to short in case somebody has  
13 a connectivity issue, so three weeks was sort of the  
14 compromised case.

12:49 15 Q. But does that change who's actually on the  
16 list every two weeks?

17 A. Not necessarily.

18 Q. Okay. Understood. On the next page, there's  
19 a question, apparently from [REDACTED] as you say:

12:49 20 "What happens when validators start misbehaving?"  
21 Can you please just read your answer to yourself?

22 (Pause.)

23 BY MR. TENREIRO:

24 Q. Towards the middle, you say:

12:49 25 "We have had incidents where some validators

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12:49 1 diverge from the majority of validators, resulting in  
2 the inability to form an 80 percent majority."

3 A. Yes.

4 Q. "The code to handle this (called the  
12:49 5 'preferred ledger' by branch code) has been improved to  
6 prevent this."

7 Do you see that?

8 A. Yes.

9 Q. Improved by whom?

12:49 10 A. I don't recall who made those specific  
11 improvements.

12 Q. Was it Ripple employees?

13 A. I don't -- I don't recall.

14 Q. Okay. Later, you say:

12:49 15 "Of course, there's a near certainty that there are  
16 still bugs in the code and when misbehavior appears, we  
17 try to find the cause and fix it."

18 Who is the "we" in that sentence?

19 A. I don't know who I was referring to, but  
12:50 20 anyone who notices them.

21 Q. Okay. Does Ripple pay bounties to people who  
22 find bugs in the code?

23 A. We do.

24 Q. Why?

12:50 25 A. Mostly just to disincentive them from using

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12:50 1 those bugs to steal the funds from people.

2 Q. Okay. Any other reason?

3 A. The only reason I know of is to incentivize  
4 responsible disclosure.

12:50 5 Q. Incentivize them to tell you that they find  
6 the bug?

7 A. Rather than to try to steal money from people  
8 or try to do something terrible to people.

9 Q. Does anyone else pay bounties for identifying  
12:50 10 bugs with respect to the XRP Ledger code?

11 A. I don't -- I don't know.

12 Q. Okay. Have you ever --  
13 Have you ever heard of that? You know, like in  
14 time online or anything like that?

12:51 15 A. No.

16 Q. Further down, you talk about the fork  
17 situation. In answer to the next question, the  
18 paragraph begins "For example" -- you know, please read  
19 it to yourself. I'm sort of focused on the end, where  
12:51 20 it says:

21 "At that point, the network would fork with those  
22 running Ripple code and UNL or close to it, not having  
23 the feature and those running this group's code and  
24 recommending UNL are close to it, having the feature."

12:51 25 A. Yes.

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12:51 1 Q. Is this sort of the situation we've been  
2 describing as to how a fork could occur?

3 A. This is the intentional fork situation.

4 Q. Where people simply do not agree with each  
12:51 5 other and have different nodes on their trust list?

6 A. Well, more likely they would agree over  
7 system rules.

8 Q. Over?

9 A. System rules.

12:51 10 But the same thing could in theory happen. It just  
11 seems unlikely that people would want to fork over  
12 tie-breaking, essentially.

13 Q. Sure, sure. So let's say --

14 So in other words, 80 percent of nodes agree on a  
12:52 15 system rule, but the 20 percent that don't -- they just  
16 don't want to adopt and fork intentionally?

17 A. Right.

18 Q. That's the scenario?

19 A. They have either option, either go along with  
12:52 20 the majority or fork.

21 Q. Is a major fork in Ripple's interest?

22 A. I could imagine scenarios where it is and  
23 isn't.

24 Q. Right now, is it?

12:52 25 A. Again, I can imagine scenarios where it is

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12:52 1 and isn't.

2 Q. Where are the scenarios where it is?

3 A. Well, suppose somebody wants to mate the XRP  
4 Ledger with the DeFi ledger, and they add DeFi features  
12:52 5 to it.

6 (Thereupon, an informal discussion was  
7 held off the record with the shorthand  
8 reporter.)

9 THE WITNESS: If somebody wanted to add  
12:52 10 DeFi features to the XRP Ledger, there would  
11 be some resistance because it increases the  
12 complexity.

13 But if they fork the ledger, Ripple would  
14 have no reason to object to that fork. There  
12:53 15 would just be more activity.

16 BY MR. TENREIRO:

17 Q. Why hasn't that happened? Not DeFi  
18 specifically, but why hasn't it happened that someone  
19 comes in to propose something?

12:53 20 MR. CERESNEY: Objection to form.

21 THE WITNESS: I don't think there has --  
22 I don't think there has been. There just  
23 hasn't been that type of disagreement.

24 MR. TENREIRO:  
25

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12:53 1 BY MR. CERESNEY:

2 Q. Okay. At what point did Ripple have -- so at  
3 this point, Ripple has fewer than 20 percent of  
4 validators of the 150 you mentioned?

12:53 5 A. Yes.

6 Q. Okay, and what percentage of Ripple's  
7 validators are on Ripple's dUNL list?

8 A. Did you mean to ask what percentage of the  
9 validators on the list are Ripple's?

12:53 10 Q. Yes.

11 A. I know it's less than 20 percent, but I don't  
12 recall the exact number.

13 Q. When did it go below 20?

14 A. I -- I don't recall.

12:54 15 Q. Was it in the last year or two years?

16 A. I think it was -- I think it probably wasn't  
17 within the last year, but probably was within the last  
18 two years.

19 Q. When did it go below 50 percent?

12:54 20 A. Again, I don't -- I don't recall.

21 (Thereupon, a 23-page document entitled  
22 "Can Ripple labs reverse a payment? - Page 2 -  
23 Technical Discussion - Xrp Chat" was introduced  
24 as DS Exhibit 46 for identification.)

12:54 25 BY MR. TENREIRO:

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12:54 1 Q. Okay. Let's look at Exhibit 46. This is an  
2 excerpt from Chat. My question is going to be on page  
3 8. Do you know who "mDuo13" is?

4 A. I think I do. I'm just trying to remember  
12:55 5 his name. It is -- it is someone I know.

6 Q. Who is it?

7 A. I'm trying to remember his name. [REDACTED]

8 [REDACTED] I believe.

9 Q. Is he a Ripple employee?

12:55 10 A. He was, at times.

11 (Thereupon, an informal discussion was  
12 held off the record with the shorthand  
13 reporter.)

14 BY MR. TENREIRO:

12:55 15 Q. I'm going to go back to this point, but on  
16 page 13, there's a post by you from January 8th, 2018.  
17 In the first paragraph, it says:

18 "While I'd like to be quite confident that this  
19 will happen and I think our 2018 decentralization  
12:55 20 roadmap will get us to that point..."

21 My question is: What is your -- what was Ripple's  
22 2018 decentralization roadmap?

23 A. To continue reducing the number of  
24 Ripple-operated validators on the UNL and increase the  
12:56 25 number of nonRipple-operated validators.

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12:56 1 Q. Going back to -- I'm not going to say his  
2 name correctly, but to -- mDuo's post on page 8, it  
3 says:

4 "Ripple currently recommends that you trust only  
12:56 5 the five validators that Ripple runs."

6 Was that statement correct as of that time at that  
7 time?

8 A. It -- it could have been. There certainly  
9 were times when that was correct. I --

12:56 10 Q. Later -- go ahead. Sorry.

11 A. So I -- so I can't be absolutely sure that  
12 January 20th -- but that's reasonable.

13 Q. Okay. Further down, he says:

14 "As long as most users of the XRP Ledger continue  
12:56 15 to trust only the five validators that Ripple  
16 recommends, then Ripple controls the network."

17 Do you agree with that statement?

18 A. I agree with that statement as it refers to  
19 short-term decentralization.

12:57 20 Q. And not as refers to what?

21 A. Well, if you read what he continues to say,  
22 "As soon as users decide to trust a different set of  
23 validators, Ripple no longer controls those users'  
24 networks and those users can make that decision at any  
12:57 25 time."

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12:57 1           It's strange to describe something as controlled --  
2       it's strange to describe me as controlling something  
3       when somebody else can eliminate that control at any  
4       moment they choose to do so.

12:57 5           Q.     And no one has chosen -- sorry.  
6           Most users of the network have not chosen to do so,  
7       right?

8           A.     Yes, to my knowledge.

9           Q.     Further down, the third bullet point says, in  
12:57 10       a parenthetical:

11                "To some extent, the value of XRP also hinges on  
12       Ripple's good stewardship of the XRP Ledger." Do you  
13       agree with that statement?

14           A.     I don't today.

12:57 15           Q.     Back in 2018?

16           A.     I might -- I might have then.

17           Q.     You don't agree today?

18           A.     I don't.

19           Q.     Why not?

12:58 20           A.     Because -- well, two reasons. One is that  
21       the term "value" is -- is -- is an ambiguous term that  
22       means -- it can mean a number of different things.

23                But if you want to determine it strictly as -- as  
24       price, then the evidence seems to show that the price of  
12:58 25       XRP moves with the cryptocurrency market generally and

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12:58 1 it doesn't hinge on anything going on inside the XRP  
2 ecosystem.

3 Q. Right, and so I'm not -- you know, you can  
4 interpret "value" as you like. It doesn't have to be  
12:58 5 price.

6 Sitting here today, does the value of XRP also  
7 hinge on Ripple's good stewardship of the XRP Ledger?

8 A. I -- I don't think so. I don't know.

9 Q. Would you have any hypothesis as to what  
12:58 10 happened -- what would happen to the value of XRP today  
11 if Ripple walked away from the XRP Ledger?

12 A. My hypothesis is that there would probably be  
13 a short-term drop just because expectations would be  
14 shaken, and then it would probably recover.

12:59 15 Q. What expectations?

16 A. People have an expectation that things  
17 won't -- that the status -- generally, people expect the  
18 status quo not to change, and any change from the status  
19 quo is generally bad.

12:59 20 Q. When you say, "people," who are these people?

21 A. Just anyone who's been following the space.

22 Q. Why would -- well, how would their  
23 expectations change and cause a drop in price?

24 A. Because generally, any change in expectations  
12:59 25 causes a change in price, unless -- unless it's

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12:59 1 obviously good. It's just --

2 It's just a market fact that when there's something  
3 that sort of disrupts people's expectations, it causes a  
4 short-term drop.

12:59 5 Q. And so Ripple walking away from the XRP  
6 Ledger is not obviously good?

7 A. Right, and unexpected, and so it would create  
8 a -- probably a short-term drop.

9 Q. Why is it unexpected?

12:59 10 A. It's just not something Ripple's ever done  
11 before.

12 Q. But Ripple has said that it hopes to one day  
13 sort of walk away?

14 A. Yes.

12:59 15 Q. But why isn't it expected?

16 MR. CERESNEY: Objection. You've got to  
17 let us object.

18 THE WITNESS: Sorry.

19 (Thereupon, an informal discussion was  
12:59 20 held off the record.)

21 BY MR. CERESNEY:

22 Q. My question was: Why is it expected --

23 Why isn't it expected if Ripple has stated that  
24 it's going to walk away?

01:00 25 MR. CERESNEY: And objection to form.

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01:00 1 THE WITNESS: I guess I was envisioning a  
2 hypothetical where Ripple abruptly just sort  
3 of stopped, and I don't think people expected  
4 that's what would happen.

01:00 5 BY MR. TENREIRO:

6 Q. I see.

7 A. If you envision a more gradual reduction,  
8 that might be in accord with people's expectation. It  
9 might even be positively received.

01:00 10 Q. All right. Let's look at Exhibit 13.

11 (Thereupon, an informal discussion was  
12 held off the record.)

13 MR. CERESNEY: Why don't we stop?

14 MR. TENREIRO: Yeah, let's stop.

01:00 15 THE VIDEOGRAPHER: Going off the record  
16 at 1:00.

17 (Recess taken at 1:00 p.m.)

18 (Resumed at 1:49 p.m.)

19 THE VIDEOGRAPHER: We're back on the  
01:49 20 record at 1:49.

21 (Thereupon, a multi-page document entitled  
22 Validator Registry" was introduced as DS Exhibit  
23 13 for identification.)

24 BY MR. TENREIRO:

01:49 25 Q. Good afternoon, Mr. Schwartz.

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01:48 1 Can we take a look at Exhibit 13, please? Do you  
2 have it?

3 A. Not yet.

4 Q. That's another document from  
01:48 5 xrpcharts.ripple.com, and the path is "validators."

6 A. Yes, I see this document.

7 Q. What is this?

8 A. It appears to be -- it appears to be a list  
9 of validators along with their affiliations and public  
01:49 10 keys.

11 Q. The public key is the column on the right?

12 A. Yes.

13 Q. That's sort of how you identify a validator?

14 A. Yes.

01:49 15 Q. The messages from those validators are signed  
16 by their public key?

17 A. Yes.

18 Q. Okay. This is a list of -- of validators or  
19 of validators on the UNL, or -- or what do you mean by  
01:49 20 the "list of validators"?

21 A. I don't really know.

22 It looks like a list of validators that were live  
23 on the network at some particular time, but I'm not  
24 sure.

01:50 25 Q. Do you know why some say "yes" and some say

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01:50 1 "no"?

2 A. I don't know for sure. There's no column  
3 heading.

4 Q. Do you know if the ones that say "yes" are  
01:50 5 ripples to UNL validators?

6 A. I don't know for sure. I suspect that's what  
7 it means, but I don't know.

8 (Thereupon, an informal discussion was  
9 held off the record.)

01:50 10 BY MR. TENREIRO:

11 Q. Okay. Again, if I wanted to know which of  
12 these -- to the extent --

13 To the extent they are on the dUNL, if I wanted to  
14 know which of them Ripple has or has had a commercial  
01:50 15 relationship with, who would I ask?

16 A. I don't know.

17 Q. Not you?

18 A. No.

19 Q. You're not the one who knows that?

01:51 20 A. I wouldn't know. Certainly not for all of  
21 them.

22 (Pause.)

23 (Thereupon, a five-page Insights article  
24 entitled "How We Are Further Decentralizing the  
01:51 25 XRP Ledger to Bolster Robustness for Enterprise

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01:51 1           Use" dated 5/11/17 was introduced as DS Exhibit  
2           27 for identification.)

3 BY MR. TENREIRO:

4           Q.     Let me just show you Exhibit 27. This is an  
01:51 5 article that I believe was supposed was posted to  
6 Ripple's website by Team Ripple.

7           My question is whether you know if it's true that  
8 in May of 2017, the XRP Ledger had 25 validator nodes  
9 running and that there's a reference to that at the top  
01:51 10 of the second page.

11          A.     I'm sure there must have been more than 25  
12 validator nodes running at that time.

13          Q.     Is there a distinction -- so this article is  
14 incorrect?

01:52 15          A.     I think it's -- I would say --  
16                Yeah, I think it's being imprecise. I would  
17 assume -- I suspect they're referring to validators on  
18 the UNL, but I don't know.

19          Q.     How many did Ripple run at that time?  
01:52 20                (Pause.)

21                THE WITNESS: Yeah, I don't -- I don't  
22 know.

23 BY MR. TENREIRO:

24          Q.     Okay, and again, is it fair to say that if  
01:52 25 there's 25 validators on the dUNL and all 25 adopt the

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01:52 1 same dUNL as each other, they can move the network along  
2 and anybody else does not matter? For their reality, at  
3 least?

4 A. Yes.

01:52 5 Q. Okay. If there are --

6 If there comes a point where there would be zero  
7 Ripple nodes on the --

8 MR. TENREIRO: Sorry. Let's start again.

9 BY MR. TENREIRO:

01:53 10 Q. Presently, does Ripple intend to get to a  
11 point where it will have zero validator nodes?

12 A. I think we've stated that that's a goal. I  
13 don't think that it makes --

14 I don't think there's any significant difference  
01:53 15 between zero or one, or one or two, but in the general  
16 direction, it is to reduce the number.

17 Q. If you get to zero or one or two, would the  
18 dUNL list still be curated by Ripple?

19 A. We could still recommend the list if we  
01:53 20 wanted to, regardless of how many validators we operated  
21 that were on that list.

22 Q. You can still put a default list into the  
23 program as well, right?

24 A. Yes.

01:53 25 Q. Okay. Exhibit 76, please.

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01:53 1 (An informal discussion was held off the  
2 record.)

3 (Thereupon, a four-page Twitter printout  
4 entitled "David 'JoelKatz' Schwartz on Twitter"  
01:54 5 dated December 1, 2020 was introduced as DS  
6 Exhibit 76 for identification.)

7 BY MR. TENREIRO:

8 Q. This is a recent tweet. Seems to be December  
9 2nd, 2020. Somebody says:

01:54 10 "Unrelated question: If nodes, validators, and the  
11 community at large got together and we agree that it's  
12 better for the community to burn the 50 billion XRP  
13 Ripple has in escrows, would that be possible?"

14 You say:

01:54 15 "Yes. There would be nothing Ripple could do to  
16 stop that from happening. Public blockchains are very  
17 democratic. If the majority wants a rules change, there  
18 is nothing the minority can do to stop them."

19 Do you see that?

01:55 20 A. Yes.

21 Q. Is Ripple taking any steps to prevent the  
22 community from burning its 50 billion XRP?

23 A. No.

24 Q. How much is it worth today?

01:55 25 A. Last I checked the price, it was roughly a

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01:55 1 dollar, so -- I mean, if you used the method of just  
2 multiplying the last price by the quantity, 50 billion  
3 XRP at roughly a dollar is worth approximately 50  
4 billion dollars.

01:55 5 Q. Opposed to what method?

6 A. Well, the -- another method that you might  
7 use is how much money you could actually materialize for  
8 it.

9 Q. Right.

01:55 10 A. It would have to take place over time.

11 Q. Sure. Fair enough.

12 So Ripple is taking no steps, as we sit here today,  
13 to make sure that the community does not decide that  
14 it's better for them to burn your XRP?

01:55 15 MR. CERESNEY: Objection to form.

16 THE WITNESS: There are no steps we're  
17 taking with the -- with the -- for the purpose  
18 of achieving that outcome.

19 BY MR. TENREIRO:

01:55 20 Q. Well, what steps is Ripple taking to protect  
21 its stash of XRP from such an outcome?

22 A. No steps specifically to prevent that  
23 outcome.

24 Q. What steps is Ripple taking that could help  
01:56 25 it prevent that outcome?

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01:56 1           A.     I mean, for example, just defending our  
2 reputation -- you know, just avoiding reputational harm,  
3 for example.

4           Q.     How about exerting influence over the  
01:56 5 validators?

6           A.     That would not be effective.

7           Q.     Why not?

8                   MR. CERESNEY:  Objection.  Objection.  Go  
9 ahead.

01:56 10           THE WITNESS:  Anyone who is proposing to  
11 burn Ripple's escrow would have to make  
12 software changes in order to accomplish that.

13                   Those software changes could also change  
14 the default UNL, change the role of the UNL.  
01:56 15           There's no additional -- there's no additional  
16 step required.

17                   It would -- it would still be the same  
18 process either way.

19 BY MR. TENREIRO:

01:56 20           Q.     Does Ripple engage in current efforts to  
21 persuade validators not to do those steps?

22           A.     I don't believe that's ever come up.

23           Q.     Why hasn't it occurred, in your estimation,  
24 that the community decides it's better to burn Ripple's  
01:56 25 50 billion XRP?

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01:57 1 MR. CERESNEY: Objection to form.

2 THE WITNESS: If -- it just hasn't. It's  
3 an extreme, outrageous thing that they  
4 don't -- it doesn't need a reason not to  
01:57 5 happen.

6 BY MR. TENREIRO:

7 Q. What about burning some?

8 A. I think it would be -- I think it would be  
9 odd -- it's just a hard thing to propose like -- to  
01:57 10 propose a sort of irregular trans -- it's just difficult  
11 to do that.

12 Q. Over the years, there's been concern -- at  
13 least expressed online -- about Ripple's potential  
14 dumping of XRP into the market, right?

01:57 15 MR. CERESNEY: Objection.

16 BY MR. TENREIRO:

17 Q. That you're aware of?

18 MR. CERESNEY: Objection to form.

19 THE WITNESS: I have heard people express  
01:57 20 that concern.

21 BY MR. TENREIRO:

22 Q. There's also been concern expressed about  
23 overhang on XRP because Ripple holds a lot of it?

24 A. I've heard those concerns.

01:57 25 Q. And, in fact, one of the reasons Ripple

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01:57 1 established the time release was to address some of  
2 those concerns, correct?

3 A. Yes.

4 Q. Okay, and isn't it also true that under  
01:57 5 demand and supply dictating price, Ripple's stash of XRP  
6 disappeared, that may be good for the other holders of  
7 XRP?

8 MR. CERESNEY: Objection to form.

9 THE WITNESS: Could be either good, bad,  
01:58 10 or have no effect. There's no way I could  
11 predict what the effect would be.

12 BY MR. TENREIRO:

13 Q. What do you think the effect would be?

14 MR. CERESNEY: Objection to form.

01:58 15 THE WITNESS: I can -- I can make a  
16 strong argument for all three scenarios.

17 BY MR. TENREIRO:

18 Q. Okay, so sitting here today, given -- you  
19 know, concerns expressed at times about Ripple's  
01:58 20 overhang or Ripple potentially dumping XRP, do you have  
21 any belief as to why the community hasn't gotten  
22 together and just described to burn your 50 billion?

23 MR. CERESNEY: Objection to form.

24 THE WITNESS: I don't think they have had  
01:58 25 any reason to do anything that drastic.

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01:58 1 BY MR. TENREIRO:

2 Q. In other words, Ripple hasn't done anything  
3 that would make them want to do that? Is that what you  
4 mean by "any reason"?

01:58 5 MR. GERTZMAN: Objection to form.

6 THE WITNESS: I think that's part of what  
7 I meant, but I would go broad -- more broadly  
8 and say nothing's happened -- that nothing  
9 else has happened.

01:59 10 One could imagine external factors.

11 There just -- it just -- there's just never  
12 been a circumstance where that seemed like an  
13 appropriate remedy.

14 BY MR. TENREIRO:

01:59 15 Q. In terms of non-external Ripple factors,  
16 would you say Ripple's been a good steward for XRP over  
17 the years?

18 MR. CERESNEY: Objection.

19 THE WITNESS: In terms of external,  
01:59 20 non-Ripple factors?

21 BY MR. TENREIRO:

22 Q. Taking out --

23 A. Oh.

24 Q. Excluding -- excluding.

01:59 25 Excluding external, would you say Ripple's been a

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01:59 1 good steward for XRP over the years?

2 MR. CERESNEY: Objection to form.

3 THE WITNESS: I guess that depends what  
4 you mean by "steward."

01:59 5 BY MR. TENREIRO:

6 Q. Well, to the extent that --

7 I guess what's not clear about that word, to the  
8 extent it's used?

9 MR. CERESNEY: Objection.

01:59 10 THE WITNESS: I understand what  
11 stewardship means with respect to the XRP  
12 Ripple holds.

13 It's hard to understand how that concept  
14 would apply broadly to an ecosystem or an  
02:00 15 asset.

16 BY MR. TENREIRO:

17 Q. Well, let's talk about the stewardship with  
18 respect to the XRP that Ripple holds.

19 A. Right.

02:00 20 Q. Would you say over the years, Ripple has been  
21 a good steward of that XRP?

22 A. I think Ripple has used its XRP responsibly.

23 Q. Okay. Do you think that's benefited XRP  
24 holders at large?

02:00 25 A. I think it hasn't harmed then.

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02:00 1 (Thereupon, an informal discussion was  
2 held off the record.)

3 MR. TENREIRO: Let's look at Exhibit 82,  
4 please.

02:01 5 MR. CERESNEY: Hold on.

6 Before you question on this, Jorge, can  
7 you move to a different exhibit so we can come  
8 back to this?

9 I want to spend a few minutes with the  
02:02 10 witness on this regarding a privilege issue.

11 MR. TENREIRO: Sure.

12 BY MR. TENREIRO:

13 Q. All right. Does Ripple make decisions on  
14 inclusion on the dUNL list based on amendment voting  
02:02 15 history or expected future voting history?

16 A. I believe we --

17 Not on amendment history, but we have on  
18 expectation of involvement in the voting process.

19 Q. The expectation being that they will be  
02:02 20 involved?

21 A. We would prefer validators that were not  
22 indifferent to the voting process.

23 Q. Why?

24 A. Because if validators don't think about their  
02:02 25 votes, then the voting process doesn't accomplish

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02:02 1 anything, doesn't measure sentiment.

2 Q. How do you ensure that there's commitment to  
3 the voting process?

4 A. I don't know specifically.

02:03 5 Q. What involvement do you have in that process?

6 A. I was involved in discussing those criteria  
7 and my recollection from those discussions was that we  
8 would communicate with whoever at the institution or  
9 entity was responsible for maintaining the validator to  
02:03 10 judge whether they had an interest in following the  
11 amendment process.

12 Q. When you say, "we," you mean someone at  
13 Ripple?

14 A. Yes.

02:03 15 Q. Has Ripple ever communicated with validators  
16 about voting strategies?

17 A. I wouldn't characterize any of those  
18 communications as a voting strategy. We communicated  
19 with individual voters.

02:03 20 Q. Okay. Why?

21 A. Sometimes we think amendments are a good  
22 idea. Sometimes we don't, and we communicate our views  
23 both publicly and to validator operators.

24 Q. To validator operators privately?

02:04 25 A. Not to my knowledge.

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02:04 1 Q. Well, so you mentioned publicly, and you  
2 mentioned to validator operators. So how do you -- is  
3 it just always public?

4 A. I believe it's always public.

02:04 5 Q. Do you know if Ripple's ever communicated  
6 with individual nodes to suggest or encourage a  
7 particular voting stance?

8 A. The only incident I know of involved us  
9 influencing validators to vote "no" on an amendment  
02:04 10 until such time as it had sufficient time for other  
11 people to form a view.

12 Q. Which was that?

13 A. I don't remember which amendment.

14 I'm trying to remember. I don't remember. I don't  
02:05 15 remember which it was, but -- yeah, I don't recall  
16 precisely.

17 Q. Okay. You said Ripple had proposed the  
18 Checks Amendment --

19 A. Yes.

02:05 20 Q. -- at some point.

21 Why did Ripple change its mind about its stance on  
22 the Checks Amendment?

23 A. The amendment turned out to be more  
24 complicated and risky than we thought was reasonable for  
02:05 25 the functionality that it provided, which we didn't

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02:05 1 think was all that important.

2 Q. Based on what?

3 A. Based on the internal viewpoint of the  
4 team -- members of the team who had worked on the  
02:05 5 amendment.

6 Q. Okay, and when did that view develop first  
7 the amendment did not pass?

8 A. Right.

9 Q. And does it stay on or -- if it's not passed  
02:05 10 or does it expire after two weeks?

11 A. It doesn't expire unless people actually  
12 choose to actively renew.

13 Q. And Ripple did not renew?

14 A. No, we didn't.

02:05 15 Q. At some point, the vote started switching to  
16 "yes"?

17 A. Yes.

18 Q. Did Ripple have any role in switching some of  
19 those votes to "yes"?

02:05 20 A. My recollection is that our position at the  
21 time was that -- that the amendment had not had  
22 sufficient testing and that there were serious questions  
23 about whether its usefulness exceeded its risk and that  
24 we were advising against the amendment.

02:06 25 Q. Right, but my question was --

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02:06 1           Maybe the answer's in there, but I missed it. My  
2 question was: Did Ripple have any role in securing  
3 "yes" votes for the amendment?

4           A.     No. We were trying to secure "no" votes at  
02:06 5 the time.

6           Q.     When you proposed it, did you try secure  
7 "yes" votes?

8           A.     I don't think we ever got to the point where  
9 we were advising validators to vote "yes" on it.

02:06 10           My recollection is that our position switched to a  
11 "no" stance before it got to the stage where external  
12 validators would have been voting on it.

13                   MR. TENREIRO: Okay. Do you want to take  
14 a break to discuss that exhibit? Because I'm  
02:06 15 going to move on.

16                   MR. CERESNEY: I think we're ...

17                   I think we need some time on our end to  
18 make inquiries and then talk with the witness  
19 about it.

02:07 20                   MR. TENREIRO: More than just --

21                   MR. CERESNEY: Yeah. If you move on, we  
22 will come back to it.

23                   MR. TENREIRO: Okay. Exhibit 70, please.  
24 Let's go off the record for one minute. My  
02:07 25 laptop is not working.

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02:07 1 (Thereupon, an informal discussion was  
2 held off the record.)  
3 THE VIDEOGRAPHER: Going off at 2:07.  
4 (Recess taken at 2:07 p.m.)  
02:09 5 (Resumed at 2:09 p.m.)  
6 THE VIDEOGRAPHER: Back on at 2:09.  
7 (Thereupon, an e-mail chain with the top  
8 e-mail dated 7/6/2020 from Brad Garlinghouse to  
9 David Schwartz et al. was introduced as DS  
02:09 10 Exhibit 70 for identification.)  
11 BY MR. TENREIRO:  
12 Q. All right. So Exhibit 70 is an e-mail  
13 from -- well, the bottom part of it --  
14 The principal part is from you to somebody on July  
02:10 15 6, 2020. It appears that Mr. Garlinghouse is one of the  
16 recipients of your e-mail.  
17 A. Yes.  
18 (Pause.)  
19 BY MR. TENREIRO:  
02:10 20 Q. Sorry. At the bottom -- towards the bottom,  
21 you say:  
22 "These two events dramatically demonstrate that  
23 Ripple's control over the XRP Ledger consists of  
24 persuasion and influence and not any ability to  
02:10 25 unilaterally make arbitrary changes."

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02:10 1 Do you see that?

2 A. Yes.

3 Q. What did you mean by that, "persuasion and  
4 influence," here?

02:10 5 A. I meant our ability to make changes over the  
6 XRP Ledger consisted of convincing other people that  
7 those changes were good ideas, just as anyone else's  
8 would be.

9 Q. And does Ripple engage in those efforts  
02:11 10 today?

11 A. Yeah.

12 Q. Is it known to the public that Ripple engages  
13 in those efforts?

14 MR. CERESNEY: Objection --

02:11 15 MR. GERTZMAN: Objection to the form.

16 MR. CERESNEY: Yeah, form.

17 THE WITNESS: I believe it's known to the  
18 public that Ripple participates in the  
19 development process, that some amendments are  
02:11 20 authored by people who work at Ripple, and  
21 Ripple sometimes advises voting "yes" or "no"  
22 on those amendments.

23 BY MR. TENREIRO:

24 Q. At the top, it says "As you know, one of the  
02:11 25 most common objections to the use of XRP and the XRP

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02:11 1 Ledger is the perceived centralization or control over  
2 the ledger by Ripple."

3 Do you see that?

4 A. Yes.

02:11 5 Q. Why does Ripple care to respond to these  
6 common objections to the use of XRP and the XRP Ledger?

7 MR. CERESNEY: Objection to form.

8 THE WITNESS: We wouldn't want people not  
9 to use XRP or the XRP Ledger for reasons that  
02:12 10 are not factual.

11 BY MR. TENREIRO:

12 Q. Does Ripple want people to use XRP and the  
13 XRP Ledger?

14 MR. CERESNEY: Objection to form.

02:12 15 THE WITNESS: I would say Ripple wants  
16 people to use the XRP Ledger.

17 BY MR. TENREIRO:

18 Q. Not XRP?

19 A. Not necessarily.

02:12 20 Q. From your perspective, Ripple's indifferent  
21 as to whether people use XRP?

22 MR. CERESNEY: Objection to form.

23 THE WITNESS: It's an extremely nuances  
24 point that's hard to put into a "yes" or "no"  
02:12 25 answer to that question.

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02:12 1 BY MR. TENREIRO:

2 Q. Well, we can expand. It doesn't have to be  
3 "yes" or "no."

4 A. Ripple wants people who use blockchain  
02:12 5 technologies to get best experiences. Otherwise, there  
6 won't exist a market. We wouldn't have customers. We  
7 wouldn't have a business.

8 If that means them using XRP, then we would like  
9 them to be able to. If that means other assets are  
02:12 10 better, we would like them to use that.

11 Q. With respect to Ripple's product -- products,  
12 whatever they may be, does Ripple care whether there  
13 exists a market for XRP?

14 MR. CERESNEY: Objection to form.

02:13 15 THE WITNESS: Yes.

16 BY MR. TENREIRO:

17 Q. So Ripple does care?

18 MR. GERTZMAN: Objection to form.

19 THE WITNESS: Sorry. Could you back up?

02:13 20 BY MR. TENREIRO:

21 Q. Does Ripple --

22 I asked you whether Ripple cares, but my question  
23 now is: Does it care?

24 A. Yes.

02:13 25 MR. CERESNEY: Objection to form.

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02:13 1 BY MR. TENREIRO:

2 Q. Okay, and why does Ripple care for there to  
3 be a market for XRP?

4 A. Because ODL works best with XRP because of  
02:13 5 the lower fees and higher speeds of the XRP Ledger than  
6 ODL's.

7 Q. And has Ripple taken steps to make sure that  
8 that market, in fact, exists?

9 MR. CERESNEY: Objection to form.

02:13 10 THE WITNESS: In ODL corridors.

11 BY MR. TENREIRO:

12 Q. So I'm talking more generally about the XRP  
13 markets. Has Ripple taken steps, for example, to be  
14 market makers to make a market for XRP?

02:13 15 A. To my knowledge, exclusively in corridors  
16 that specifically needed that liquidity for a deal.

17 Q. Otherwise, Ripple has engaged market makers  
18 to sell its own XRP?

19 A. I believe so.

02:14 20 Q. And that's --

21 That wasn't in connection with creating corridor  
22 liquidity? Is that your testimony?

23 A. My understanding was that those market makers  
24 sold XRP by market making with a bias in favor of  
02:14 25 selling, and so it does as well -- it does in addition

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02:14 1 improve liquidity.

2 Q. That wasn't the purpose?

3 A. I -- I couldn't tell you which of those two  
4 purposes was dominant or how -- how they connected.

02:14 5 Q. At some point, one of the purposes of  
6 Ripple's XRP sales was to simply raise revenue; is that  
7 right?

8 A. I -- I think so.

9 Q. Just to sort of -- let's look at Exhibit 42,  
02:15 10 please.

11 (Pause.)

12 MS. FORBES: Would you please repeat the  
13 exhibit number?

14 MR. TENREIRO: Exhibit 42. Before we  
02:15 15 move on, your request that we move on from  
16 that exhibit for a moment reminded me that, as  
17 I told you before we went on the record this  
18 morning -- you know.

19 We're just preserving on the record an  
02:15 20 objection or rather a reservation of rights to  
21 call the witness back to the extent that  
22 there's a dispute over the proper assertion of  
23 privilege over some documents that we e-mailed  
24 last night in addition to our general concerns  
02:15 25 stated in e-mails back and forth before about

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02:15 1 the timing and production of documents and the  
2 productions that have occurred.

3 MR. CERESNEY: Yeah, and I would say on  
4 the record that we would object to any attempt  
02:15 5 to call Mr. Schwartz back, and we believe our  
6 productions have been more than prompt and, in  
7 fact, responsive to your requests, and we  
8 believe there's a proper privilege assertion  
9 over the documents we talked about we e-mailed  
02:16 10 last night.

11 MR. TENREIRO: Okay, thanks.

12 (Thereupon, an eight-page e-mail dated  
13 12/31/17 from [REDACTED] to  
14 [REDACTED] et al. was introduced as DS  
02:16 15 Exhibit 42 for identification.)

16 BY MR. TENREIRO:

17 Q. So on Exhibit 42, just take a moment to look  
18 at it. It's an eight-page document that sort of seems  
19 to include a Slack -- sort of a printout of a Slack  
02:16 20 channel?

21 A. Yes.

22 Q. Towards the top, [REDACTED] says:

23 "Set the channel's purpose: Discuss the XRP Ledger  
24 issue of [REDACTED] on December 30th, 2017."

02:16 25 Do you see that?

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02:16 1 A. Yes.

2 Q. What was the issue?

3 (Pause.)

4 THE WITNESS: One second.

02:16 5 MR. CERESNEY: Take your time.

6 THE WITNESS: It looks like there was  
7 some --

8 There was some issue with their -- their  
9 integration that is the way [REDACTED] was using  
02:17 10 the ledger software.

11 BY MR. TENREIRO:

12 Q. Why was [REDACTED] calling you about this?

13 A. Probably because we had provided them contact  
14 information.

02:17 15 Q. Is there anyone else that provides this type  
16 of service route changes when they have an issue with  
17 the software they are using to interact with the XRP  
18 Ledger?

19 MR. CERESNEY: Objection, asked and  
02:17 20 answered this morning.

21 THE WITNESS: I believe there are.

22 BY MR. TENREIRO:

23 Q. Who?

24 A. The two companies I mentioned earlier, [REDACTED]  
02:17 25 [REDACTED] and -- [REDACTED].

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02:18 1 Q. Do you know how often they answered or  
2 fielded these sort of questions?

3 A. No, I don't.

4 Q. Well, just in case you ever talked to them?

02:18 5 A. I haven't, but they -- they provide this type  
6 of support as a business.

7 Q. What relationship, if any, do they have to  
8 Ripple?

9 A. I -- I believe the only relationship [REDACTED]  
02:18 10 [REDACTED] has is their validator's on our dUNL. I  
11 believe we've given -- we have given some funding to the  
12 other company, whose name I can't recall.

13 Q. Okay. On the next page, David@Ripple -- is  
14 that you?

02:18 15 A. Yes.

16 Q. So page 2, actually. Let's skip ahead.  
17 Towards the top, you say:

18 "Also, we need to make charts more reliable. I got  
19 about a dozen 'can't find TX on charts' messages during  
02:18 20 this rally."

21 Do you see that?

22 A. Yes.

23 Q. What is that about? First of all, what does  
24 "rally" mean?

02:18 25 A. "Rally" means a period of increased

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02:19 1 transaction volume in the digital currency space,  
2 generally.

3 Q. And it doesn't include price increase?

4 A. Can include price increase.

02:19 5 Q. What does it mean here?

6 A. I think here, it means increase in volume.

7 Q. Why?

8 A. Because that's when people --

9 Because when the prices are moving up or down or  
02:19 10 there's volume for any reason, they all result in  
11 increased load on infrastructure, and this is from the  
12 standpoint of maintaining infrastructure.

13 Q. So making the charts more reliable?

14 A. Yes, exactly.

02:19 15 Q. Is that something that still -- that Ripple  
16 still endeavors to do today?

17 A. We are one of the providers of those types of  
18 charts and, of course, we try to make them as reliable  
19 as we can.

02:19 20 (Thereupon, an e-mail chain with the top  
21 e-mail dated 11/13/18 from [REDACTED] to [REDACTED]  
22 [REDACTED] et al. was introduced as DS  
23 Exhibit 44 for identification.)

24 BY MR. TENREIRO:

02:19 25 Q. Okay. Let's look at Exhibit 44, please. So

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02:20 1 this is a two-page email, in part to you.

2 A. Uh-huh.

3 Q. Who is [REDACTED]?

4 A. [REDACTED] was the product manager  
02:20 5 who worked with the XRP Ledger at the team at Ripple  
6 working on the XRP Ledger.

7 Q. Okay. Do you recall this incident from  
8 November 2018, where it says:

9 "The XRP Ledger encountered a critical issue an  
02:20 10 hour ago, when one of the recommended lists (UNL)  
11 expired and a new list was published."

12 Whose UNL expired?

13 A. I don't specifically recall.

14 Q. It was -- would it have been Ripple's?

02:21 15 A. This was 2018, and I believe we had the only  
16 list that I knew of at that time, so I must have -- I  
17 would assume it would be ours.

18 Q. So you say:

19 "Unfortunately, this caused several of the  
02:21 20 validators on the network to desync and stop validating  
21 transactions, which has stalled the XRP Ledger from  
22 making forward progress.

23 "Keep in mind, this occurs as a safety measure to  
24 prevent the network from forking."

02:21 25 Do you see that?

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02:21 1 A. Yes.

2 Q. Is that a feature that Ripple had put into  
3 the ledger?

4 A. I think that's a safety feature that predates  
02:21 5 Ripple's existence.

6 Q. Is that a safety feature that you put into  
7 the ledger?

8 A. I believe so.

9 Q. [REDACTED] responds. Who is [REDACTED]?

02:21 10 A. She probably was head of communications at  
11 the time.

12 Q. She says, in part, "Also, please do not reply  
13 to other Tweets or other social media posts on the topic  
14 right now." Do you see that?

02:22 15 A. Yes.

16 Q. Why not? Did you ask her?

17 A. I didn't.

18 Q. Do you know why?

19 A. Only the rationale that she explains in this  
02:22 20 paragraph.

21 Q. Which is that you just might want it to fly  
22 under the radar?

23 A. I think it was more she was working on a  
24 statement.

02:22 25 Q. I guess my question is earlier, you had

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02:22 1 said -- you know, Ripple had an interest in there being  
2 accurate information in the market; is that right?

3 A. Yes.

4 Q. And what about information that was accurate  
02:22 5 but Ripple did not like for some reason? What was  
6 Ripple's stance with respect to that information?

7 MR. CERESNEY: Objection to form, also  
8 misstates this exhibit. That's the  
9 implication.

02:22 10 THE WITNESS: I -- I don't accept the  
11 general statement that anything that's  
12 necessarily negative we would not want to have  
13 exposure.

14 BY MR. TENREIRO:

02:22 15 Q. No, I'm not saying that. I'm asking you if  
16 there was something negative.

17 What was Ripple's stance with respect to something  
18 negative, if there is not a general answer?

19 A. There is not a general answer.

02:22 20 Q. Okay. Well --

21 A. We try to be honest about failings where we  
22 think that's the appropriate response.

23 Q. Okay, but this --

24 Is this one where Ripple decided not to call  
02:23 25 attention to the issue?

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02:23 1 MR. CERESNEY: Objection to form.

2 THE WITNESS: I think [REDACTED] statement  
3 here speaks for itself. She wanted to prepare  
4 a response.

02:23 5 BY MR. TENREIRO:

6 Q. Did Ripple issue a response to the stalling  
7 of the network in 2018, November?

8 A. I don't know.

9 Q. Why would Ripple want to prepare a response?

02:23 10 MR. CERESNEY: Objection.

11 MR. GERTZMAN: Objection to form.

12 THE WITNESS: If -- if incorrect  
13 information circulated, we would want to be  
14 ready with accurate information.

02:23 15 BY MR. TENREIRO:

16 Q. Okay. Let's set this aside and look at  
17 Exhibit -- one second.

18 (Pause.)

19 (Thereupon, a multi-page printout from  
02:23 20 Bitcoin Forum entitled "Latest Posts of  
21 JoelKatz" dated April 17, 2013 was introduced as  
22 DS Exhibit 3 for identification.)

23 BY MR. TENREIRO:

24 Q. Let's look at Exhibit 3, please.

02:24 25 A. Is there a particular page?

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02:24 1 Q. Yes. One second.

2 (Pause.)

3 BY MR. TENREIRO:

4 Q. Exhibit 3, page 5. So these are posts of  
02:25 5 Joel Katz on Bitcoin Forum. The quote is on page 4. It  
6 says:

7 "Is the only reason for it not working as well with  
8 BTC is that OpenCoin wouldn't have a stock of XRP to  
9 hang out to promote the system if that's the only case?"

02:25 10 MR. CERESNEY: Hold on. I don't think  
11 he's --

12 THE WITNESS: I don't see it.

13 MR. CERESNEY: It's at the bottom of page  
14 4.

02:25 15 BY MR. TENREIRO:

16 Q. The very bottom.

17 A. I see it.

18 Q. The quote is at the very bottom.

19 (Pause.)

02:25 20 THE WITNESS: Yes.

21 BY MR. TENREIRO:

22 Q. Your response concludes by saying:

23 "XRP funds the development and ensures there's a  
24 healthy company standing behind the network."

02:25 25 What do you mean by that, "healthy company standing

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02:25 1 behind the network"?

2 A. I meant at that time --

3 I meant at that time that I hoped that the XRP  
4 would allow -- would allow the company at that time,  
02:26 5 OpenCoin, to continue operating.

6 Q. How would it do that?

7 A. Any -- any number of ways, from -- from --  
8 well --

9 Q. What does "funds the development" mean?

02:26 10 (Pause.)

11 THE WITNESS: It's hard for me to say  
12 today what I would have meant -- you know,  
13 nine years ago.

14 BY MR. TENREIRO:

02:26 15 Q. As you read it today, what does it mean to  
16 you?

17 MR. CERESNEY: Objection.

18 THE WITNESS: I'll -- I'll do that, but I  
19 just want to note that these terms have  
02:27 20 changed meaning so many times and that we know  
21 so much information that we know now that we  
22 didn't know then. Trying to say -- tell what  
23 it means now doesn't bear any relationship to  
24 what someone at that time would have  
02:27 25 understood it or what I intended it to mean.

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02:27 1 But today, knowing that Ripple has sold  
2 XRP, you would think that's what I was  
3 referring to today, only because we know that  
4 that happened, but nobody at that time would  
02:27 5 have known that that happened.

6 BY MR. TENREIRO:

7 Q. How else would XRP fund the development of a  
8 healthy company rather than by being sold?

9 A. There was no plausible way at that time.

02:27 10 Q. Including the selling?

11 A. Yes.

12 Q. What -- what way other than selling would XRP  
13 be able to fund the development and assure there's a  
14 healthy company?

02:27 15 A. I can't tell you today what I meant in 2013.

16 Q. No, I'm not asking about what you meant. I'm  
17 asking you back in 2013 -- I understand there was no  
18 plausible way.

19 Selling would be one potential way back then. What  
02:28 20 other potential ways existed back then for XRP to fund  
21 the development of the company?

22 MR. CERESNEY: Objection to the  
23 characterization, because "I understand there  
24 was no plausible way. Selling would be one  
02:28 25 way," but I thought he was saying there was no

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02:28 1 plausible way for selling to actually be in  
2 the way at the time.

3 MR. TENREIRO: Right. I think he was  
4 saying there was no plausible way at that  
02:28 5 time, no plausible way at all.

6 MR. CERESNEY: Okay.

7 MR. TENREIRO: Correct me if I'm wrong.

8 BY MR. TENREIRO:

9 Q. The selling was something that could you  
02:28 10 imagine occurring at some point, even though it wasn't  
11 plausible at that time; is that fair to say?

12 A. Yes.

13 Q. Even in 2013, you could imagine perhaps one  
14 way you might sell?

02:28 15 A. Right.

16 Q. What else in 2013 -- you can set aside the  
17 document or you can refer to it, if you would like.

18 What else in 2013 would you imagine -- did you  
19 imagine -- in what other way did you imagine in 2013  
02:29 20 that XRP could found the development of the company  
21 other than by being sold.

22 A. XRP could be part of the use cases that --  
23 that the company would promote to venture capitalists to  
24 get venture capital for the company, which was our  
02:29 25 funding -- our actual funding source at that time.

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02:29 1 BY MR. TENREIRO:

2 Q. Why would the venture capitalists care about  
3 the use cases?

4 A. Because the use cases could potentially  
02:29 5 deliver revenue from things like marketing fees and  
6 transaction fees, and so you don't always have to be a  
7 clear model or use case.

8 Q. Let's look at Exhibit 2, real quick.

9 (Pause.)

02:29 10 MR. GERTZMAN: Which exhibit?

11 MR. TENREIRO: Two.

12 MR. GERTZMAN: Thank you.

13 (Thereupon, a multi-page printout from  
14 Bitcoin Forum entitled "Latest Posts of  
02:29 15 JoelKatz" dated April 15, 2013 was introduced as  
16 DS Exhibit 2 for identification.)

17 BY MR. TENREIRO:

18 Q. This is the first page. This is April 15th,  
19 2013?

02:30 20 A. Yes.

21 Q. Towards the middle, you say -- first, second,  
22 and then you say:

23 "In truth, the rhetoric is actually more believable  
24 with OpenCoin having a profit motive. For example, if  
02:30 25 we had no profit motive to do so, why should people be

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02:30 1 confident we are actually going to decentralize the  
2 system?

3 "Why should they be confident that we'll work as  
4 hard as we can to drive adoption so they could feel  
02:30 5 comfortable putting their own resources into Ripple?  
6 Because we have a big stake, there's no reason not to  
7 believe us when we say we'll work to make that stake  
8 worth more."

9 What is -- what do you mean there, because we --  
02:30 10 who's "we"?

11 A. That -- the "we" here is OpenCoin.

12 Q. And what -- big stake in what?

13 A. The XRP Ledger.

14 Q. And do you have a --

02:30 15 Did you have a big stake in XRP itself at that  
16 point?

17 A. I don't believe we did in April 2013.

18 Q. In April of 2013, OpenCoin did not have a big  
19 stake in XRP?

02:31 20 A. I would have to be check to be sure, but I  
21 believe XRP did not have an established value at that  
22 time.

23 Q. At the beginning of the response, you talk  
24 about "100 billion XRP is all that there will ever be."

02:31 25 Do you see that?

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02:31 1 A. Yes.

2 Q. But your testimony is that when you refer to  
3 the "big stake" here, you're not talking about XRP?

4 (Pause.)

02:31 5 THE WITNESS: I -- it's not --

6 I don't recall exactly what I meant in  
7 2013, but it's not clear to me today that that  
8 was what I was referring to.

9 BY MR. TENREIRO:

02:31 10 Q. Does Ripple still have a big stake in the XRP  
11 Ledger today?

12 A. I think you could -- I think we have a big  
13 stake in the XRP Ledger --

14 MR. CERESNEY: Objection to form,  
02:32 15 actually.

16 THE WITNESS: Yeah, it's ... I could  
17 think of ways to understand that where the  
18 answer would be "yes" and ways where it would  
19 be "no."

02:32 20 BY MR. TENREIRO:

21 Q. What are the ways where the answer's "yes"?

22 A. Well, if you think that Ripple's ownership of  
23 XRP constitutes a stake in the XRP Ledger, which I  
24 don't, but -- otherwise, I don't think -- I think stakes  
02:32 25 in the XRP Ledger --

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02:32 1 As I use the term "a stake in the XRP Ledger," I  
2 mean the people who use it, who use it for transactions,  
3 and Ripple does not do that all that much.

4 Q. Ripple has a high stake in XRP today, right?  
02:32 5 We've talked about that.

6 A. Ripple's ownership --  
7 Ripple has significant holdings with significant  
8 notional value.

9 Q. And if the notional value drops, that's bad  
02:32 10 for Ripple; is that fair?

11 A. Not really.

12 Q. Why not?

13 A. The notional value doesn't really impact  
14 Ripple in any way.

02:32 15 Q. Does it impact Ripple's ability to monetize  
16 its holdings for XRP for more money?

17 A. It could, in the short term.

18 Q. Okay. So you're saying Ripple today does not  
19 care if the price of XRP goes down; is that your  
02:33 20 testimony?

21 A. My testimony is that Ripple is not  
22 particularly concerned with the short-term pricing.

23 Q. It's concerned with the long-term price?

24 A. I think there is concern with the long-term  
02:33 25 price.

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02:33 1 Q. And Ripple would prefer the long-term price  
2 of XRP to go up or go down?

3 A. I mean, if Ripple had a choice, Ripple would  
4 prefer the long-term price to go up.

02:33 5 Q. With a stake in the XRP Ledger, does Ripple  
6 have a large stake in the XRP Ledger today?

7 MR. GERTZMAN: Objection to form.

8 THE WITNESS: Yeah, my -- if -- I  
9 hesitate to give a "yes" or "no" answer, and I  
02:33 10 don't want to just repeat what I said.

11 I would argue the stake and the XRP  
12 Ledger comes from the people who use it to  
13 transact and Ripple doesn't do that.

14 BY MR. TENREIRO:

02:33 15 Q. Ripple -- if it did not have its XRP, what  
16 source of revenue would it have?

17 MR. CERESNEY: Objection, form.

18 THE WITNESS: Well, the same sources of  
19 revenue it has with -- with its the stake --  
02:34 20 with its XRP, except the ability to sell the  
21 XRP or use the XRP to incentivize partners.

22 BY MR. TENREIRO:

23 Q. So the better question would have been what  
24 other non-XRP revenue sources does Ripple have today?

02:34 25 A. Things like licensing fees, transaction fees,

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02:34 1 and mostly others -- many speculative ones that we have  
2 not explored yet.

3 Q. Let's not speculate now, but just --  
4 The ones you have today are licensing fees, you  
02:34 5 said?

6 A. Yes.

7 Q. And that's -- that's over software?

8 A. Yes.

9 Q. Software that runs using the XRP Ledger?

02:34 10 A. Well, could -- could either or not be.  
11 RippleNet software, for example, doesn't use the XRP  
12 Ledger.

13 Q. What is Ripple's revenue from licensing fees  
14 of that software today?

02:34 15 A. One of the actual revenue numbers? I don't  
16 know those.

17 Q. How significant are they compared to -- you  
18 know, Ripple's XRP sales revenue?

19 A. They are significantly smaller.

02:34 20 Q. Okay. So if Ripple doesn't have XRP and  
21 doesn't have -- you know, any software that operates on  
22 the XRP Ledger, what will be left of Ripple today, no  
23 hypothetical?

24 MR. CERESNEY: Objection, form.

02:35 25 THE WITNESS: The RippleNet business,

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02:35 1           Ripple's stake in MoneyGram, Ripple's  
2           investment in other cryptocurrency companies,  
3           and so on.

4 BY MR. TENREIRO:

02:35 5           Q.     So the RippleNet is its currency?

6           A.     Well, if you imagine that we didn't have the  
7 XRP, we could -- xRapid could end up using -- could  
8 attempt to make xRapid work using other cryptocurrencies  
9 or moving different directions.

02:35 10          Q.     So in terms of revenues that would come in  
11 the door tomorrow, how much would you estimate would  
12 come in?

13                   MR. CERESNEY:  Objection.

14                   THE WITNESS:  It would be small.  We have  
02:35 15           not built the company that way.

16 BY MR. TENREIRO:

17          Q.     So the company's being built around the  
18 revenues from XRP sales, in part; is that correct?

19                   MR. CERESNEY:  Objection to form.

02:35 20           THE WITNESS:  I would say the company's  
21 been built around future revenue sources that  
22 we have not discovered yet.

23                   But the sales of XRP has been a funding  
24 source to permit us to pursue those future  
02:36 25           models.

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02:36 1 BY MR. TENREIRO:

2 Q. Right, and so -- but the -- you know.

3 You haven't discovered some things, but so today,  
4 the company's ability to keep the lights on, what  
02:36 5 revenues from XRP sales is one source, correct?

6 A. Yes.

7 Q. And some licensing fees from some software  
8 that operates with a ledger such as ODL, right?

9 A. Uh-huh, yes.

02:36 10 Q. And some licensing fees with respect to  
11 perhaps other software that does not operate on the XRP  
12 Ledger?

13 A. Yes.

14 Q. So if I remove the XRP and the ones that  
02:36 15 operate on the XRP Ledger, what revenue is left for  
16 Ripple today?

17 A. Venture capital investments and then there's  
18 RippleNet revenues that are not connected to the XRP  
19 Ledger.

02:36 20 Q. How much is that number again?

21 A. I don't know, but it's -- I don't know.

22 Q. Is it in the hundreds of millions?

23 A. No.

24 Q. Okay. The exhibit -- the next page says --  
02:37 25 you're answering some other post, and you say:

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02:37 1 "I hope not. We don't want that kind of control.  
2 It doesn't benefit us in any way, and it will decrease  
3 adoption.

4 "Our financial interest is in seeing the value of  
02:37 5 XRP go up and the primary way for us to achieve that is  
6 broad adoption of Ripple as a payment system." Do you  
7 see that?

8 A. I actually don't see that. Is that page 2?

9 Q. Yes, at the top.

02:37 10 MR. CERESNEY: It starts with "I hope  
11 not."

12 THE WITNESS: Oh, I see it now. Can you  
13 give me just one second to review what I am  
14 responding to?

02:37 15 MR. TENREIRO: Yes.

16 (Pause.)

17 THE WITNESS: Yes.

18 BY MR. TENREIRO:

19 Q. So there, is it fair to say you are tying  
02:37 20 Ripple's financial interest to the value of XRP going  
21 up?

22 A. Yes.

23 Q. Does "value" refer to anything other than  
24 price there?

02:38 25 A. I believe it does.

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02:38 1 Q. What does it refer to?

2 A. Utility.

3 Q. Does it refer to both utility and price or  
4 just utility?

02:38 5 A. It's not -- it's not clear from context. It  
6 could refer to either or both of those things.

7 Q. So your -- your statement --

8 Your testimony is that your statement here can be  
9 read as "Our financial interest is that the utility of  
02:38 10 XRP go up, and the primary way for us to achieve that is  
11 broad adoption of Ripple as a payment system"?

12 A. Yes.

13 (Pause.)

14 BY MR. TENREIRO:

02:38 15 Q. Okay. So it's not clear to you today whether  
16 you referred to utility and price or which combination;  
17 is that right?

18 A. It's very hard for me today to think back to  
19 what my focus would have been at a particular date in  
02:39 20 2013, responding to a particular question.

21 Q. Okay.

22 (Pause.)

23 BY MR. TENREIRO:

24 Q. All right. Let's move on from this one.  
02:39 25 Let's look at Exhibit 5, please.

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02:39 1           Actually, before you look at one, just real quick,  
2           if you can just look at that page on Exhibit 2 again --

3           A.       Uh-huh.

4           Q.       -- where you say that "Ripple's incentive" --  
02:39 5           it's Exhibit 2, page 2. "Ripple's incentive" -- sorry.

6           "Ripple's financial interest is in seeing the value  
7           of XRP go up, and the primary way for us to achieve that  
8           is broad adoption of Ripple as a payment system."

9           Is it still true today that its relationship's  
02:39 10          financial interest is in seeing the value of XRP go up?

11          A.       I am less confident in that today than I  
12          was -- than I believe I was back then.

13          Q.       And why is that?

14          A.       Because there's -- because there's less of a  
02:40 15          demonstrated connection between the utility of XRP and  
16          Ripple's financial interest.

17          Q.       How so?

18          A.       I would have expected back in 2013 to see  
19          those things move in tandem, and I have not.

02:40 20          Q.       You're talking about the price, now?

21          A.       I am talking about movement between Ripple's  
22          financial interest and the value of the XRP.

23          Q.       So it's not necessarily clear to you that  
24          it's in Ripple's financial interest for Ripple to  
02:40 25          achieve broad adoption of the Ripple Ledger as a payment

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02:40 1 system?

2 A. Yes.

3 Q. So why is Ripple -- is Ripple making efforts  
4 to achieve that adoption today?

02:40 5 MR. CERESNEY: Objection.

6 THE WITNESS: Minimally. I can't say no,  
7 but it's not a primary objective.

8 BY MR. TENREIRO:

9 Q. What is the primary objective of Ripple  
02:41 10 today?

11 A. A build-out of RippleNet.

12 Q. Meaning xCurrent?

13 A. Yes.

14 Q. Are you talking about xCurrent or xRapid?

02:41 15 A. Both, but -- currently, the focus has been on  
16 xRapid, but xRapid -- you know, doesn't work without  
17 xCurrent.

18 Q. Okay. Fair enough, and xRapid in part relies  
19 on XRP as a bridge for the transactions, right?

02:41 20 A. Right, but it doesn't rely on the XRP  
21 Ledger's functionality other than the movement in the  
22 XRP, which it already had. You can't really improve  
23 that.

24 Q. You mean the XRP Ledger already had the  
02:41 25 movement of the XRP as the functionality?

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02:41 1 A. Right.

2 Q. So Ripple's focus today is not with respect  
3 to the XRP Ledger? It's with respect to the market for  
4 XRP?

02:41 5 A. I would say the majority of Ripple's focus  
6 today is with respect to the xRapid product which  
7 requires liquidity, and it requires the XRP Ledger to  
8 move XRP, but it doesn't require utility beyond that.

9 Q. So liquidity and the XRP market vis-a-vis the  
02:42 10 tranches on the corridors?

11 A. Correct, yes.

12 Q. So Mexican peso, XRP, U.S. dollar, XRP, for  
13 example?

14 A. The product won't work.

02:42 15 Q. Sorry?

16 A. The product won't work without that  
17 liquidity.

18 Q. So your testimony is that Ripple's efforts  
19 today are focusing on ensuring liquidity on the tranches  
02:42 20 of ODL corridors, essentially?

21 A. I would say that's a big -- that's a major  
22 focus.

23 Q. Is it the major focus?

24 A. No, I would characterize the major focus as  
02:42 25 growing RippleNet, which means xCurrent and today mostly

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02:42 1 around xRapid.

2 Q. Okay. What other things does Ripple do today  
3 to ensure that the ODL product grows?

4 A. We look for partners. ODL partners use  
02:42 5 [inaudible] directly. Companies will make the last mile  
6 in the payments, develop the software, and so on.

7 Q. Companies that make the last mile on the  
8 payments, like market makers?

9 A. No. The "last mile" is the delivery of the  
02:43 10 fiat to the final recipient.

11 Q. So what types of companies are those?

12 A. Either exchanges or payment providers.

13 Q. And does -- what is the licensing fee for the  
14 xRapid software?

02:43 15 A. I don't know.

16 Q. Is it monthly or is it one time?

17 A. I don't -- I don't know.

18 Q. And how --

19 Again, what's the order of magnitude of revenue  
02:43 20 that Ripple's derived from that?

21 A. I don't know.

22 Q. Does Ripple charge -- let's say MoneyGram --  
23 MoneyGram's not using it right now; fair?

24 A. Yes.

02:43 25 Q. When they were, did Ripple charge MoneyGram

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02:43 1 like a per-transaction fee or ...

2 A. I don't know the commercial details of that  
3 particular arrangement.

4 Q. Does Ripple charge any customer that's on the  
02:43 5 xRapid platform for transaction fees?

6 A. I don't know.

7 Q. Ripple, in fact, pays some of these  
8 incentives to use the xRapid platform, right?

9 A. I know customers who receive a variety of  
02:44 10 different incentives.

11 Q. So I am trying to understand what benefits  
12 come from Ripple. Does Ripple make money -- you know.

13 When you add and subtract payments that it makes  
14 and fees licensing fees it might receive or other per  
02:44 15 transaction fees to the extent they exist, does Ripple  
16 make money from that product?

17 A. I don't know what that final number would be.

18 Q. And who would know?

19 A. It would be on our financial statements and  
02:44 20 people who prepare those statements would know.

21 Q. Okay. Ripple --

22 In the ODL sort of flow, there's a purchase -- one  
23 of the steps is there's a purchase of XRP for U.S.  
24 dollars and then there's a sale of XRP for Mexican  
02:44 25 pesos; is that right?

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02:44 1 A. In the USD, that makes sense. Yes.

2 Q. And other than perhaps changes in the  
3 changing rates and changes in the amount of time it  
4 takes, it's about the same amount of XRP that comes in  
02:45 5 and out of the system, right?

6 A. Typically, yes.

7 Q. Does Ripple sell its XRP for the purpose of  
8 the ODL platform?

9 A. I'm not sure.

02:45 10 Q. Okay. So now we have Exhibit -- which one  
11 did I say, Exhibit 5? Or four? Exhibit 5?

12

13 (Thereupon, a multi-page printout from  
14 Bitcoin Forum entitled "Latest Posts of  
02:45 15 JoelKatz" dated May 13, 2013 was introduced as  
16 DS Exhibit 5 for identification.)

17 BY MR. TENREIRO:

18 Q. All right. These are posts -- we'll still  
19 back in 2013 at the bottom of page 3, please.

02:45 20 (Pause.)

21 THE WITNESS: Yes.

22 BY MR. TENREIRO:

23 Q. It says:

24 "As a corporation, we are legally obligated to  
02:45 25 maximize shareholder value." Do you see that?

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02:45 1 A. Yes.

2 Q. What shareholders are you referring to?

3 A. Ripple's shareholders.

4 Q. Who are they back then?

02:46 5 A. In 2013? Myself, Chris Larsen, [REDACTED]

6 [REDACTED] some of the early investors. I don't know if  
7 there would be C firms at that time.

8 Q. I'm sorry, who?

9 A. I don't know if there would be C firms that  
02:46 10 invested. I think by 2013, I think at least [inaudible]

11 [REDACTED] and [REDACTED] had invested, but I  
12 couldn't -- I can't confirm the exact timeline.

13 Q. Is Ripple still legally obligated to maximize  
14 shareholder value today?

02:46 15 A. Yes.

16 Q. Then you say:

17 "With our current business model, that means acting  
18 to increase the value and liquidity of XRP."

19 What was the current business model?

02:46 20 A. At 2013, there really wasn't one. The --

21 I mean, I guess it was directly to increase the  
22 value and liquidity of XRP.

23 Q. But not necessarily how?

24 A. Yeah, I hate to call it a business model.

02:46 25 Q. You wanted that to happen, not sure exactly

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02:47 1 how it was going to happen?

2 A. Right.

3 Q. And when you say, "value and liquidity,"  
4 "value" refers to price or something else?

02:47 5 A. I think -- well, you can't increase the value  
6 when there is no value. It refers here to utility.

7 Q. Okay. The next sentence says:

8 "We believe this will happen if the Ripple network  
9 is widely adopted as a payment system. We are pursuing  
02:47 10 multiple avenues at once. One would expect increased  
11 demand to increase price."

12 Are you referring there to the idea that if there's  
13 increased utility, there might be increased demand,  
14 therefore an increase in price?

02:47 15 A. Well, I just have to clarify that there was  
16 no price, so here increase price goes from not having a  
17 price to having a price.

18 Q. But does increase price mean anything other  
19 than increase in price from zero to --

02:47 20 A. It means from there not being a price to  
21 there being a price.

22 Q. That's still an increase?

23 A. Yeah, from not having a number to having a  
24 number is not necessarily an increase, but that's why I  
02:47 25 hesitate to characterize that -- but I did use that word

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02:48 1 at the time.

2 Q. And does Ripple's current business model  
3 still include Ripple acting to increase the value of  
4 liquidity of XRP?

02:48 5 A. I think Ripple still acts to increase the  
6 you'll of XRP and we act to increase the liquidity in  
7 ODL corridors, so to that extent this is still true, but  
8 obviously, Ripple's pursuing other models in addition to  
9 that now, and that's not primary as we discussed before.

02:48 10 Q. The primary model remains active to increase  
11 value and liquidity of XRP? And now, you're saying but  
12 the liquidity only in the ODL corridors?

13 A. Right, and I would say increasing the value  
14 of XRP isn't really a Ripple business model.

02:48 15 It's still something we're doing, but I hesitate to  
16 describe it as a "business model," because it hasn't  
17 demonstrated an ability to produce revenue.

18 Q. Do you have an understanding as to why?

19 A. I'm not an economist, but I know from  
02:49 20 observation that cryptocurrency prices seem to track  
21 each other. They don't seem to correlate as you might  
22 expect them to, even with supply and demand for a  
23 particular cryptocurrency or the utility or the projects  
24 going on. The correlation just doesn't appear to be  
02:49 25 there.

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02:49 1 Q. But this is just from your own sort of lay  
2 observation?

3 A. Well, I know that other people have made  
4 those same observations as well.

02:49 5 Q. What people?

6 A. I mean, I've seen that -- that viewpoint  
7 expressed -- you know, in the literature.

8 Q. In the economic literature?

9 A. No, in the cryptocurrency space.

02:49 10 Q. Got it. Okay. Let's look at Exhibit 7.

11 (Thereupon, an informal discussion was  
12 held off the record.)

13 THE VIDEOGRAPHER: Going off the record  
14 at 2:50.

02:50 15 (Recess taken at 2:50 p.m.)

16 (Resumed at 3:06 p.m.)

17 THE VIDEOGRAPHER: Back on the record at  
18 3:06.

19 MR. TENREIRO: Okay.

03:06 20 (Thereupon, a one-page e-mail dated  
21 6/10/2013 from David Schwartz to [REDACTED]  
22 was introduced as DS Exhibit 7 for  
23 identification.)

24 BY MR. TENREIRO:

03:05 25 Q. Mr. Schwartz, before we went off the

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03:05 1 record -- you know, you mentioned your observation as a  
2 layperson and also reading in literature that there  
3 doesn't seem to be a correlation, as one might expect,  
4 even with supply and demand for cryptocurrency based on  
03:06 5 the utility of the projects going on.

6 Do you recall generally this conversation we just  
7 had a minute ago?

8 A. Yes.

9 Q. Okay. At what point in time did you come to  
03:06 10 that conclusion or that belief, at least?

11 A. I don't think there was a particular time  
12 where there was a dramatic shift. I think it was a  
13 gradual shift over time.

14 Q. Could you pinpoint when it began?

03:06 15 A. I would say probably late 2014.

16 Q. In late 2014, you began to believe that there  
17 might be or you might maybe have begun to wonder whether  
18 there was any correlation between utility and demand?

19 A. Between utility and price?

03:06 20 Q. Between utility and price, right; and is that  
21 the same time that Ripple came to develop that view or  
22 is that just you --

23 A. I don't know that Ripple had that view.

24 Q. Does Ripple have that view today, as far as  
03:06 25 you know?

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03:06 1 MR. CERESNEY: Objection to form, using  
2 the term "Ripple."

3 BY MR. TENREIRO:

4 Q. Ripple the company, just to be clear?

03:07 5 MR. CERESNEY: I don't know who that is,  
6 but okay.

7 THE WITNESS: Yeah, there are people at  
8 the company who have expressed that view.

9 BY MR. TENREIRO:

03:07 10 Q. Like who?

11 A. I can't recall specific conversations with  
12 specific people, but we have discussed -- you know,  
13 whether there was evidence for that kind of correlation.

14 Q. Do you know whether Ripple buys XRP in the  
03:07 15 market or has bought XRP in the market?

16 A. I -- I believe there are two incidents where  
17 we did.

18 Q. And for what purpose?

19 A. One incident was involving a family member of  
03:07 20 [REDACTED] who had sold XRP in violation of an agreement, and  
21 my understanding was that we bought that XRP back to  
22 sort of undo that, and I think there was one connection  
23 where we -- where we bought XRP because an ODL tran- --  
24 because an ODL flow resulted in a net sale.

03:08 25 Q. In a net sale?

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03:08 1 A. Yes.

2 Q. Why would you want to buy the XRP that  
3 resulted in a net sale?

4 A. Again, to cancel that transaction out from  
03:08 5 the market.

6 Q. Why?

7 A. So that we would not have an undue impact on  
8 the market.

9 Q. Undue impact in what direction?

03:08 10 A. In any direction.

11 Q. And was that a concern -- the undue impact in  
12 any direction also a concern with regard to Ripple's  
13 programmatic sales?

14 MR. GERTZMAN: Objection to the form.

03:08 15 THE WITNESS: I'm not sure.

16 MR. TENREIRO: Okay. Did I give him  
17 seven? Seven was what we were about to do?  
18 Okay. Let's do Exhibit 7.

19 (Pause.)

03:09 20 BY MR. TENREIRO:

21 Q. So this is an e-mail to you June of 2013 --

22 A. Uh-huh, yes.

23 Q. -- and you're looking for an economist here?

24 A. Yes.

03:09 25 Q. And why were you looking for an economist?

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03:09 1 Can you explain in your own words?

2 A. Yes. I believe that some of the principles  
3 of economics and the types of reasoning that would be  
4 familiar to economists might have some relevance to the  
03:09 5 distribution and use of a digital asset.

6 Q. And are you talking here about the  
7 distribution and use of XRP?

8 A. Yes.

9 Q. Then you say, at the bottom:

03:09 10 "A big issue we have is that we basically need to  
11 set monetary policy and the way we give away and sell  
12 XRP."

13 Do you see that?

14 A. Yes.

03:09 15 Q. What do you mean by "monetary policy"?

16 A. I put it in quotes because I didn't mean the  
17 exact sort of "central bank" understanding of monetary  
18 policy.

19 What I meant was something that might have some of  
03:10 20 the same economic principles as monetary -- someone who  
21 was familiar with monetary policy might be able to  
22 translate those skills to this particular problem.

23 Q. Which principles of monetary policy?

24 A. I don't know what the principles of monetary  
03:10 25 policy are.

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03:10 1 Q. Well, which ones did you mean when you wrote  
2 that? There are like controlling inflation or ...

3 A. I think -- I think what I was thinking about  
4 is the rate at which XRP is introduced into circulation.

03:10 5 Q. And why were you thinking about that?

6 A. Because we didn't know -- we didn't know how  
7 to do that. That was a problem we faced that we didn't  
8 have a solution at that time.

9 Q. Who did you hire as a result of this, if  
03:10 10 anyone?

11 A. No one.

12 Q. You never hired an economist?

13 A. Not until very recently.

14 Q. So this didn't lead to a lead or anything?

03:10 15 A. No, it did not.

16 Q. Okay. Currently -- do you currently have a  
17 plan in terms of how Ripple handles giving away and/or  
18 selling XRP?

19 MR. GERTZMAN: Objection to the form.

03:11 20 THE WITNESS: Ripple has a strategy to  
21 put its XRP in circulation that it's executed  
22 over time and the policy's changed.

23 BY MR. TENREIRO:

24 Q. What is it now?

03:11 25 MR. CERESNEY: Objection to form.

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03:11 1 THE WITNESS: Now, it's programmatic  
2 sales, sales to ODL partners, used for  
3 investment, incentivizing partners, those  
4 strategies.

03:11 5 BY MR. TENREIRO:

6 Q. Is Ripple still engaging in pragmatic sales  
7 today?

8 A. I don't know.

9 Q. Let's look at Exhibit 21.

03:12 10 (An informal discussion was held off the  
11 record.)

12 (Thereupon, a four-page Twitter printout  
13 dated 5/5/2017 was introduced as DS Exhibit 21  
14 for identification.)

03:12 15 THE WITNESS: Thank you.

16 BY MR. TENREIRO:

17 Q. Before we look at this one, when you were --  
18 when we were discussing earlier your view about Ripple's  
19 legal obligation to increase shareholder value, when you  
03:12 20 were using the word "value" there, were you meaning  
21 utility, price, or something else?

22 MR. CERESNEY: I'm going to object.  
23 Form.

24 MR. TENREIRO: Okay.

03:12 25 THE WITNESS: I think when I speak about

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03:12 1 shareholder value, mine the value that  
2 shareholders get from their ownership in  
3 Ripple, which is predominantly the actual  
4 value they can get from their shares, but also  
03:13 5 includes things like advancing technology  
6 generally, their interests in things like a  
7 better planet and so on.

8 BY MR. TENREIRO:

9 Q. So they are sort of personal returns, if you  
03:13 10 will?

11 A. Yes, exactly. How their advances -- how  
12 their ownership in Ripple advances their interests.

13 Q. Some sort of ...

14 Okay, but -- some sort of like happiness index, I  
03:13 15 guess?

16 A. Yeah, yeah.

17 Q. Personal satisfaction?

18 A. Yeah.

19 Q. Primarily the actual value that they could  
03:13 20 get, meaning what they can -- how much money they could  
21 get from their interests or their shares, rather?

22 A. There's definitely a financial component.

23 Q. Okay.

24 A. I just don't want to imply that Ripple is  
03:13 25 obligated to do anything that makes the shareholders

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03:13 1 money.

2 Q. Fair enough. Is Ripple's legal obligation to  
3 maximize -- where does Ripple's --

4 I know you're not a lawyer, but to the extent you  
03:13 5 talk about -- you know, "As a corporation, we're legally  
6 obligated to maximize shareholder value," from what  
7 principle of law does Ripple's obligation to maximize  
8 someone's happiness index arise?

9 MR. GERTZMAN: Objection to form.

03:14 10 MR. CERESNEY: Objection.

11 THE WITNESS: I'm not a lawyer, but my  
12 understanding is a company has an obligation  
13 like a fiduciary obligation to maximize the  
14 value that shareholders get from their  
03:14 15 ownership.

16 But that doesn't translate necessarily  
17 having to produce them as many dollars as  
18 possible.

19 (Thereupon, an informal discussion was  
03:14 20 held off the record.)

21 BY MR. TENREIRO:

22 Q. All right. The tweet, May 5th, 2017, "XRP  
23 hits 10 cents." You had some champagne ready for that?

24 A. Yes.

03:14 25 Q. Why?

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03:14 1 A. Much as people celebrate birthdays and round  
2 numbers, people in the cryptocurrency community  
3 frequently celebrate round number prices.

4 Q. And which others did you celebrate?

03:14 5 A. I celebrated Bitcoin hitting \$100. I  
6 celebrated Bitcoin hitting a thousand dollars. I  
7 celebrated Bitcoin hitting \$2500, hitting \$10,000, I  
8 celebrated XRP hitting 25 cents. I celebrated Ethereum  
9 hitting a dollar, and I'm probably missing a few.

03:15 10 Q. Were those always champagne bottles?

11 A. Some of them were with huge parties. Some of  
12 them were just with Champagne bottles.

13 Q. So for XRP it was 10 cents and 25 cents?

14 A. Yes.

03:15 15 Q. Not others?

16 A. No.

17 Q. Why do people in the crypto space celebrate  
18 these milestones?

19 MR. GERTZMAN: Objection.

03:15 20 BY MR. TENREIRO:

21 Q. Why did you. Let's just say, "Why you?"

22 A. Because they seemed so impossible at the  
23 time -- at -- at previous times.

24 Q. Did you hold XRP at the time when it hit 10  
03:15 25 cents?

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03:15 1 A. Yes.

2 Q. Did you sell any after?

3 MR. CERESNEY: Objection to timing.

4 MR. CERESNEY: Objection to timing?

03:15 5 MR. CERESNEY: When you say, "After" --

6 BY MR. TENREIRO:

7 Q. Any time after?

8 A. Yes, certainly.

9 Q. Any time within the next -- you know, say few  
03:15 10 weeks after May 2017?

11 A. I'm not really sure.

12 Q. Did you believe at this time that the efforts  
13 of Ripple's team had had anything to do with the price  
14 of XRP going up?

03:16 15 A. I don't know whether I did at that time.

16 Q. Let's look at Exhibit 32.

17 (Thereupon, a nine-page printout from  
18 Bitcoin Forum entitled XRP] Ripple Speculation"  
19 was introduced as DS Exhibit 32 for  
03:16 20 identification.)

21 BY MR. TENREIRO:

22 Q. Bitcoin Forum, nine pages, May 2017, so the  
23 same month as the tweets. I'm going to ask about the  
24 first page only.

03:16 25 There appears to be a "Joel Katz" at the bottom.

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03:16 1 Who designs these avatars for you, by the way?

2 A. This particular avatar came from an article I  
3 wrote for the very first Bitcoin magazine called Bitcoin  
4 Magazine, and they produced one of these for every  
03:17 5 contributor.

6 Q. Okay, so this -- this post says -- I don't  
7 want to read all of it into the record. There's some --  
8 some personal matters here. You conclude by saying:

9 "Well, I can see I can't prove that this increase  
03:17 10 in price isn't a bubble or isn't the result of some pump  
11 and dump attempt. To me, it feels like recognition for  
12 the efforts the team has put in all these years."

13 Do you see that?

14 A. Yes.

03:17 15 Q. Does that refresh your memory that at the  
16 time of the celebration for the 10 cents you felt like  
17 the increase of the price to 10 cents had been, at least  
18 in part, as a recognition for the effort that your team  
19 had put into Ripple or XRP overall those years?

03:17 20 A. I think I --

21 MR. GERTZMAN: Objection.

22 THE WITNESS: I think I felt that to some  
23 extent.

24 BY MR. TENREIRO:

03:17 25 Q. Okay, and you are saying today you don't feel

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03:17 1 that anymore?

2 A. Yeah, I -- I think it's harder -- it's harder  
3 to -- like even as I sit here, I can't prove it.

4 I think it's harder to defend it today, given the  
03:17 5 subsequent motions of the price and their lack of  
6 correlation to anything going on to anything in the  
7 individual product.

8 Q. And I think you've talked about the  
9 correlation to cryptocurrencies generally?

03:18 10 A. Yes.

11 Q. Does the correlation, in your mind --  
12 In your mind -- this is just your understanding. I  
13 know you're not an economist.

14 Does the correlation between the price of XRP and  
03:18 15 the price of other cryptocurrencies preclude there being  
16 sort of an effect on XRP's price based on efforts of  
17 Ripple?

18 A. The correlation alone is not sufficient to  
19 demonstrate that there are no effects.

03:18 20 Q. What else would you need?

21 A. Well, the correlation demonstrates that it's  
22 not the dominant effect, but in order to rule out  
23 smaller facts, you would have to analyze events --

24 Well, you would have to analyze specifically the  
03:18 25 time of specific events and the time of specific price

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03:18 1 changes to see if you could correlate those smaller  
2 changes.

3 Q. Wouldn't you also have to analyze whether the  
4 event is actually meaningful?

03:18 5 MR. CERESNEY: Objection.

6 MR. GERTZMAN: Objection.

7 THE WITNESS: You would only want to look  
8 at events that you would at least expect to  
9 have some impact.

03:19 10 BY MR. TENREIRO:

11 Q. Right.

12 A. If your theory was that there was a causative  
13 effect, take the facts you think there would be an  
14 effect on and see if you could find anything.

03:19 15 Q. Okay. Let's look at 33. I'm going back in  
16 time just a little bit, a month. This is an April 2017  
17 e-mail chain. All of them appear to be from  
18 Mr. Garlinghouse.

19 You're copied and, I think, referred to as a board  
03:19 20 member, so my first question is: You were a board  
21 member of Ripple, correct?

22 A. Yes.

23 Q. And why did you cease being a board member?

24 A. We had added several new investors and we  
03:19 25 didn't want --

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03:19 1           They wanted board representation and we didn't want  
2 to increase the size of the board further, and so I  
3 agreed to resign to allow one of those new board members  
4 to take that place.

03:20 5           Q.     Were you okay with that?

6           A.     Yeah.

7           Q.     Okay, so the first page --

8           On the first page, the e-mail on Sunday, April 9th,  
9 Mr. Garlinghouse says:

03:20 10          "Before I dive into some highlights and lowlights,  
11 I think we will all agree that the most significant Q1  
12 development came at the end of the quarter in the form  
13 of a dramatic spike in XRP price and market activity."

14          Then, he concludes by saying:

03:20 15          "It's a game-changer for us on a bunch of levels."

16          Do you understand what he meant by that? Why was  
17 it a game-changer with a dramatic spike in XRP price and  
18 market activity?

19          A.     I don't know what specifically he was  
03:20 20 referring to, but I can reason out why he would have  
21 thought that that was significant.

22          Q.     Go ahead.

23          A.     The price and market activity of XRP affects  
24 people's ability to use it for ODL as an intermediary  
03:21 25 asset and so on.

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03:21 1 Q. Well, you didn't have ODL in 2017, right.

2 A. I -- in 2017? Well, we -- we always imagined  
3 that the goal of RippleNet would be to allow XRP  
4 settlement. We didn't have a way to do it at the time,  
03:21 5 and in fact, one of the things I think would have been a  
6 significant thing here would have allowed that corner to  
7 be turned.

8 Q. Right. So in other words, up until the  
9 moment where you turned the corner, Ripple always wanted  
03:21 10 there to be an increase in price to market activity for  
11 XRP so that this product could exist?

12 A. Well, it's --

13 MR. CERESNEY: Objection to form.

14 THE WITNESS: It's liquidity that's  
03:21 15 critical.

16 BY MR. TENREIRO:

17 Q. Are you talking about where it says  
18 "speculative and market traded volume builds up  
19 liquidity? Or what do you mean by the "liquidity"?

03:21 20 A. I --

21 MR. GERTZMAN: Objection to form.

22 THE WITNESS: Yeah, he does say that  
23 speculative and market traded volume builds up  
24 liquidity.  
25

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03:21 1 BY MR. TENREIRO:

2 Q. Okay, so the liquidity is what's critical for  
3 ODL to function?

4 A. Yeah, that's what I believe he's talking  
03:22 5 about here, to the extent I can tell just from what he  
6 wrote what he meant.

7 Q. Well, first, he talks about the spike in XRP  
8 price and says, "It's a game-changer for us."

9 A. Right.

03:22 10 Q. Then he says, "On an operating level, for XRP  
11 to serve the purpose of lowering liquidity cost for  
12 payments, it needs to keep liquidity across fiat  
13 currency pairs."

14 Do you see that?

03:22 15 A. Yes.

16 Q. So it appears to be a separate point?

17 A. I think that's -- as I read it, the next two  
18 paragraphs are two of the ways in which he thinks it's a  
19 game-changer.

03:22 20 Q. Okay.

21 A. But again, that's just how I read it.

22 I can't tell you what Garlinghouse meant, but as I  
23 read this, he says it's a game-changer and then he  
24 explains how it's a game-changer on two different  
03:22 25 levels.

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03:22 1 Q. Right. One is an operating level? The other  
2 is a more strategic level?

3 A. Yes. Right.

4 Q. Sorry.

03:22 5 A. Sorry.

6 Q. Do you agree that speculative and market  
7 traded volume builds the liquidity of the XRP market?

8 A. Yes.

9 Q. Is that true today?

03:22 10 A. Yes.

11 Q. Okay. If there's more speculative trading on  
12 the XRP/MXN pair, is that good for Ripple's -- for  
13 Ripple's desires with respect to ODL?

14 A. That's good for ODL, because that generally  
03:23 15 would be expected, there to be more liquidity.

16 Q. So is that good for Ripple, though, to the  
17 extent Ripple cares about ODL?

18 A. Yes.

19 Q. If there was more speculative trading on the  
03:23 20 dollar cross, I think is the expression, does that  
21 increase the liquidity of that cross as well?

22 A. Not in a way that's relevant for ODL.

23 Q. Because?

24 A. There's always sufficient liquidity in that  
03:23 25 corridor.

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03:23 1 Q. Okay. Below, you say -- well, he says, not  
2 you:

3 "On a more strategic level, holding two billion of  
4 XRP, based upon today's price, presents opportunities  
03:23 5 for things strategically about our capital structure and  
6 funding strategy."

7 A. Yeah.

8 Q. "We will spend more time on this at our next  
9 boards meeting."

03:23 10 Do you see that?

11 A. Yes.

12 Q. Did you spend more time on it?

13 A. I believe so.

14 Q. Okay, and what did you discuss?

03:24 15 A. I think it's hard for me to know exactly  
16 which board meeting came after this exact message and  
17 what specifically he was referring to.

18 But at that time, there was concern by the board  
19 that -- that Ripple's revenue was coming from a source  
03:24 20 outside its control.

21 Q. Which was what?

22 A. Programmatic sales of XRP or other -- other  
23 types of monetization based on XRP being -- you know,  
24 the company disposing of the XRP at a price.

03:24 25 Q. So the part that was out of the control of

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03:24 1 the company was a price at which XRP was disposed, not  
2 the fact of the sale, right?

3 A. Right. The company could control the rate at  
4 which XRP was sold but couldn't control the price.

03:24 5 Q. So it couldn't control how much revenue it  
6 would get because it was uncertain what the price would  
7 be tomorrow?

8 MR. CERESNEY: Objection.

9 THE WITNESS: I'll phrase the concern the  
03:25 10 way I would phrase it.

11 When your revenue is dependent on  
12 something you can't control, that's a concern  
13 for a business.

14 BY MR. TENREIRO:

03:25 15 Q. Well, I understand that, but what I am trying  
16 to understand is what's the part they can't control?  
17 Can't the company say today I wake up in the morning and  
18 I do sell XRP or I don't sell it?

19 Can't the company control that part?

03:25 20 A. Yes, but that -- that -- the cost of that  
21 would be -- we wouldn't be distributing XRP.

22 Q. Right, so what is the part that the company  
23 cannot control? Is that the price?

24 A. Well, it's both. It's both the price and the  
03:25 25 ability to distribute. The --

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03:25 1 We can sell or not sell XRP, but if we don't sell  
2 XRP, we aren't distributing XRP. So we can't distribute  
3 XRP without selling XRP, which is at the price we can't  
4 control. So there are sort of two knobs we can't  
03:25 5 control and one we can.

6 Q. Right, and so -- okay.

7 Did the company make efforts to sort of try to  
8 bring those knobs within its control?

9 MR. CERESNEY: Objection.

03:26 10 THE WITNESS: No.

11 BY MR. TENREIRO:

12 Q. Okay. I think we can move on, and let's go  
13 to Exhibit 20.

14 (Thereupon, a document entitled "Exchanges  
03:26 15 with XRP autobridging? (Aka 'I'm not going to  
16 spill the beans just yet') - General Discussion  
17 - Xrp Chat)" was introduced as DS Exhibit 20 for  
18 identification.)

19 BY MR. TENREIRO:

03:26 20 Q. Back to Xrp Chat. Here, I'm going to ask you  
21 for page 20. At page 20, I'm going to have some  
22 questions there.

23 A. Just one second.

24 Q. Take your time.

03:26 25 MR. CERESNEY: Yes, take your time.

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03:26 1 (Pause.)

2 THE WITNESS: Yes.

3 BY MR. TENREIRO:

4 Q. Is it true you that in 2017, Ripple was  
03:27 5 heavily focused on promoting XRP to build an awesome  
6 payment infrastructure?

7 A. Yeah, I think at the time Ripple was in 2017,  
8 Ripple was positioning XRP as reuse and an awesome  
9 payments infrastructure, in my words.

03:28 10 Q. But -- okay. You say:

11 "One big advantage we have is we control a lot of  
12 XRP and we are heavily focused on promoting it in this  
13 way. Nobody has this kind of focus on promoting Bitcoin  
14 in this way."

03:28 15 Do you see that?

16 A. Yes.

17 Q. Your you making that contrast?

18 A. Because we were working on -- we were working  
19 on building a payment system around XRP and nobody  
03:28 20 was -- nobody was currently doing that for Bitcoin.

21 Q. Is anyone currently doing that for Bitcoin?

22 A. Not this type of payment system.

23 Q. You also say, "We control a lot of XRP."

24 Does that also make it different from Bitcoin at this  
03:28 25 time?

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03:28 1 A. Well, the distribution of Bitcoin was very,  
2 very hard to know at that time. So Toshi, the original  
3 creator, probably held an enormous amount of XRP at that  
4 time.

03:29 5 Q. 2017?

6 A. I think so. It's hard for me to say, like to  
7 compare them at that point in time.

8 Q. Well, let's try Exhibit 38.

9 (Thereupon, a 26-page printout entitled  
03:29 10 "How do you like your misinformation? Please,  
11 feel free to correct him - Off-Topic - Xrp Chat"  
12 was introduced as DS Exhibit 38 for  
13 identification.)

14 BY MR. TENREIRO:

03:29 15 Q. This is another July -- this is July 2017. I  
16 think the last one I showed you was January. This is  
17 from Xrp Chat, 26 pages.

18 Please go to page 10, and I think this one is  
19 called, sardonically enough, "How do you like your  
03:29 20 misinformation? Please feel free to correct it."

21 A. Oh, great.

22 Q. I'm focused on the one that says "There's a  
23 huge advantage to having one entity that holds a  
24 fraction of an asset."

03:30 25 A. I see that.

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03:30 1 Q. Are you referring here to Ripple holding a  
2 significant -- sorry, a significant fraction, I misread  
3 that, a significant fraction, are you focusing on  
4 Ripple's significant holding of XRP?

03:30 5 A. Yes.

6 Q. You say:  
7 "Ripple could spend a hundred million on something  
8 that has no conventional way of creating revenue, but if  
9 it pushed the price of XRP up by one penny over the long  
03:30 10 term, Ripple would massively profit."

11 Do you see that?

12 A. Yes.

13 Q. How would Ripple significantly profit in that  
14 scenario [inaudible]?

03:30 15 A. There would be several ways. The obvious way  
16 would be the money Ripple could get from the sales of  
17 the XRP, but it also could increase the use of the XRP  
18 Ledger in other ways as well.

19 Q. And Ripple could profit if the price of the  
03:30 20 XRP goes up how?

21 A. Over the long term.

22 Q. I am just trying to understand. If the price  
23 of XRP goes up one penny, how does Ripple -- so Ripple  
24 could profit from sales, that conventional way?

03:31 25 A. Right.

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03:31 1 Q. How could Ripple profit from the price going  
2 up one cent by increase but it could also increase the  
3 XRP Ledger? I don't understand.

4 A. Well, Ripple's strategy at the time was  
03:31 5 about -- was about monetiz- -- was about -- let me stop  
6 for a second.

7 Ripple was using XRP both for ODL and for -- and  
8 incentivizing partners and selling it.

9 Q. Ripple was using -- was selling -- sorry.  
03:31 10 Ripple was using XRP for ODL at this point in time?

11 A. I think -- I think we were -- at this time,  
12 we weren't actually using it but envisioning using it.  
13 That would include both what Ripple was doing at that  
14 time and what Ripple could do in the future.

03:32 15 Q. So if the --

16 If Ripple spent \$100,000,000 in pushing the price  
17 up by one penny, that could lead to massive profits in  
18 the ODL business?

19 A. That could lead to increase in Ripple's  
03:32 20 profits, both from sales and from other means of using  
21 XRP on its balance sheet.

22 Q. Okay, and ODL sales, right? I thought we  
23 talked about how the profits from the ODL --

24 A. Well, you have to --

03:32 25 This is speculating in the future over the long

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03:32 1 term. Because it's mostly sales today doesn't mean it  
2 will be mostly sales in the future.

3 Q. But at that point, what would it be? At that  
4 point in time, not in the future.

03:32 5 A. At that point in time, it was sales instead  
6 of incentivizing partners.

7 Q. Okay, and later on, you say:

8 "Nobody has that kind of concentrated interest in  
9 any coin distributed primarily by mining."

03:32 10 What are you referring to there?

11 A. I explain in the next sentence what I am  
12 referring to here, that if some company tried to build a  
13 similar business around, say, Bitcoin, they would have  
14 to mine that Bitcoin, which means they would start out  
03:33 15 with a large disadvantage compared to Ripple, because  
16 that would be costly.

17 Q. So Ripple's advantage was it created the  
18 XRP -- either created or got the XRP for nothing?

19 A. Ripple's advantage is that it was gifted the  
03:33 20 XRP and didn't have to spend capital or other types of  
21 funds in order to acquire it.

22 Q. Is it also fair to say that -- what you are  
23 saying here is you have an incentive because you hold  
24 that asset that significant fraction of the asset to  
03:33 25 make these efforts to potentially increase the price by

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03:33 1 one penny that nobody else has with respect to a  
2 cryptocurrency or a coin distributed primarily by  
3 mining?

4 MR. CERESNEY: Objection to form.

03:33 5 THE WITNESS: I don't know that I'm  
6 saying we have that incentive here.

7 BY MR. TENREIRO:

8 Q. Well, further down, you say:

9 "Let me give you a stark example. The Bitcoin  
03:33 10 Foundation has been trying to raise funds to combat New  
11 York BitLicense regulation," etc.

12 A. Right.

13 Q. "But nobody has a concentrated enough  
14 interest to pay the bulk of the funds."

03:34 15 So is that example conveying to the reader that  
16 Ripple has an incentive to do things with respect to XRP  
17 because of the significant fraction that it has?

18 A. I'm saying that Ripple has more of -- would  
19 be better able to do that, not that Ripple has more  
03:34 20 incentive.

21 The Bitcoin Foundation would love to have combat  
22 the New York BitLicense regulation as we would in a  
23 similar situation. It's just that we had more resources  
24 to do so because we didn't have to expend those  
03:34 25 resources to get our XRP as people with Bitcoin would

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03:34 1 have had to expend the resources to get that Bitcoin.

2 Q. I understand your point about the ability to  
3 do it, but your very next sentence says "This is a clear  
4 example of a public good freerider problem."

03:34 5 A. Right.

6 Q. The "freerider problem" has to do with  
7 incentives, right? People's incentives right to ask in  
8 their self-interest?

9 MR. CERESNEY: Objection to form.

03:35 10 THE WITNESS: What I'm saying here is  
11 they value -- they all have an incentive to  
12 accomplish a result. They just have an  
13 organizational problem.

14 BY MR. TENREIRO:

03:35 15 Q. You say:

16 "Nobody has a strong, individual incentive to  
17 contribute."

18 A. Nobody has a strong, individual incentive to  
19 contribute, right, unless everyone else does.

03:35 20 Everyone wants to be the only one who doesn't  
21 contribute. You want everybody else to so you don't  
22 have to.

23 Q. Right.

24 A. It's an organizational problem. Everybody is  
03:35 25 equally incentivized. It's just there's no way for them

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03:35 1 to organize to act on it.

2 Q. Whereas, in the case of Ripple, because of  
3 its significant holding of XRP, that organization  
4 happens naturally, right? Isn't that what you're saying  
03:35 5 in the sum and substance of the post?

6 A. I think I'm saying we didn't have to expend  
7 depend the funds to get that cryptocurrency. It's more  
8 that we would be in a better position to do that,  
9 because we would have the funds as opposed to someone --

03:35 10 If you imagine a similar entity that used -- you  
11 know, that had to spend the funds, they just wouldn't be  
12 in as good position. Despite still having incentive,  
13 they would still have that same organizational problem.

14 Q. Later, you say:

03:36 15 "How much do you think Ripple can and does spend on  
16 regulatory issues critical to using cap XRP for its use  
17 case? The reason is obvious.

18 "Keeping the regulatory clear for XRP's use for  
19 settlement makes a huge difference to Ripple, the  
03:36 20 company, specifically."

21 Do you see that part?

22 A. Yes.

23 Q. Is that not describing Ripple's -- not just  
24 the fact that Ripple started off well ahead of someone  
03:36 25 who had to mine Bitcoin but actually has an incentive to

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03:36 1 make efforts, given its significant fraction of XRP  
2 holdings?

3 MR. CERESNEY: Objection to form.

4 THE WITNESS: I don't -- I don't really  
03:36 5 think so, because I say on regulatory issues  
6 critical to using XRP for its use case.

7 Every business has the same incentive to  
8 resolve regulatory issues critical to their  
9 use case. It's just whether they have the  
03:36 10 means to do it.

11 BY MR. TENREIRO:

12 Q. Okay. So XRP had the incentive, because its  
13 business depended on XRP; is that what you're saying?

14 MR. CERESNEY: Do you mean Ripple?

03:36 15 MR. TENREIRO: Sorry.

16 BY MR. TENREIRO:

17 Q. Ripple had the incentive, yes.

18 A. Yes. To the extent Ripple's business depends  
19 on, for example, what eventually became ODL while that  
03:37 20 wasn't active at the time, we certainly saw that use  
21 case. We were working on regulatory issues deploying  
22 that, and we were not only incentivized to do that  
23 because that's what we wanted to build our business  
24 around, we also had the resources to do it.

25

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03:37 1 Q. Did you have an understanding at this point  
2 in time, 2017, that the XRP was a security under the --  
3 under U.S. law that would -- you know, what consequences  
4 that would have for Ripple?

03:37 5 MR. CERESNEY: Objection.

6 THE WITNESS: I'm not sure I did at that  
7 time.

8 BY MR. TENREIRO:

9 Q. Did there come a time you did develop  
03:37 10 knowledge of what consequences could flow?

11 MR. CERESNEY: That's a "yes" or "no"  
12 question.

13 THE WITNESS: Yes.

14 BY MR. TENREIRO:

03:37 15 Q. And what time was that?

16 A. I think that was probably more like 2019, but  
17 I can't tell you for sure. I believe it was  
18 significantly later than this.

19 Q. Okay, and did you come to --

03:37 20 Did there come a point in time where you derived an  
21 understanding as to what consequences would [inaudible]  
22 retail holders of XRP if XRP was a secured entity under  
23 U.S. law?

24 MR. CERESNEY: That's a "yes" or "no"  
03:38 25 question.

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03:38 1 THE WITNESS: I have formed several  
2 different understandings of that at different  
3 times.

4 BY MR. TENREIRO:

03:38 5 Q. Don't tell me any understandings that you  
6 might have formed from your conversations with lawyers.  
7 If you had others that were not formed on that, I would  
8 like to know about those.

9 A. There were times when I believed it would  
03:38 10 make it impossible for individuals in the United States  
11 to transact with XRP and there were times when I  
12 believed it wouldn't have a significant impact.

13 Q. What's your belief today? Don't tell me what  
14 the lawyers --

03:38 15 MR. CERESNEY: Well, hold on.

16 To the extent that your belief today  
17 could be divided from what you learned from  
18 counsel versus things you didn't learn from  
19 counsel.

03:38 20 BY MR. TENREIRO:

21 Q. Yes.

22 A. Well, I haven't learned anything from counsel  
23 on this, and I really don't know. I have not had  
24 conversations with counsel about that.

03:38 25 Q. So what's your belief today as to whether you

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03:39 1 would have -- say XRP is a security under U.S. law.

2 What consequences would that have for retail holders?

3 A. My understanding is that it turns on issues  
4 of law that I don't understand.

03:39 5 Q. Okay.

6 A. My understanding is that I don't have an  
7 understanding.

8 Q. Okay. That's fine. So let's go to Exhibit  
9 22. Actually, wait a second. Is it still true --

03:39 10 So when we were looking at this exhibit and you  
11 were sort of describing -- I'm going to paraphrase you,  
12 not -- not meaning to exactly repeat what you said, but  
13 paraphrasing:

14 Ripple started with an advantage, because it had  
03:39 15 the XRP that was gifted and didn't have to spend the  
16 resources to mine it? That's what's sort of going on  
17 here, at least in part?

18 A. Yes.

19 Q. Does that advantage hold true today? Has  
03:39 20 that changed?

21 A. I think it's still true today. Probably less  
22 significant than it was.

23 Q. Why is it less significant today?

24 A. I think it's easier to get capital in the  
03:40 25 space now than it was then.

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03:40 1 Q. Between 2017 and today, as far as you know,  
2 has any entity acquired sort of a gift of large amounts  
3 of Bitcoin?

4 A. Not to my knowledge.

03:40 5 Q. What about of Ether? Ethereum?

6 A. The Ethereum Foundation, yeah, a huge amount  
7 it was able to distribute to investors and so on.

8 Q. So between 2017 and today, did the Ethereum  
9 Foundation gather a huge amount of Ether?

03:40 10 A. Not that I know of.

11 Q. Okay. Now let's go to Exhibit -- what did I  
12 say? Exhibit 22.

13 (Thereupon, a multi-page document entitled  
14 "Valuation Models - XRP The Digital Currency vs.  
03:40 15 Ripple the Company - XRP Trading and Price  
16 Speculation - Xrp Chat" dated 5/25/2017 was  
17 introduced as DS Exhibit 22 for identification.)

18 BY MR. TENREIRO:

19 Q. This is an Xrp Chat.

03:40 20 This one's called "Valuation Models - XRP The  
21 Digital Currency Vs. Ripple the Company - XRP Trading  
22 and Price Speculation," and this is still 2017.

23 A. Are you looking at page 13?

24 Q. 13, yes.

03:41 25 A. Yes.

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03:41 1 Q. Okay. So first, you talk about "There's a  
2 business that Ripple has providing transaction  
3 processing software to banks." Maybe there's -- "has  
4 been," perhaps, is what you meant?

03:41 5 A. I realize there's a business that Ripple has,  
6 providing transaction processing software to banks.

7 Q. Okay. Providing transaction process software  
8 to banks. "It could work without XRP and without any  
9 blockchain tech." Do you see that?

03:41 10 A. Yes.

11 Q. What business is this referring to?

12 A. xCurrent.

13 Q. Okay, and that's still the function of  
14 xCurrent today?

03:41 15 A. Yes, although it's used more broadly than  
16 just banks.

17 Q. And then, you say the -- this is No. 3.

18 "It's everything else. It's governance,  
19 compliance." I don't need to read all of it, I don't  
03:42 20 think.

21 But does this part reflect that Ripple had some  
22 challenges in -- you know, getting banks to adopt  
23 blockchain technology?

24 A. Not really. It's more about that banks would  
03:42 25 face those challenges if they were attempting to do it.

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03:42 1 Q. Did Ripple obtain any significant traction on  
2 its xCurrent product in 2017?

3 A. I would have to check the timeline, but I  
4 think -- I think we had -- I think we had established a  
03:42 5 growth pattern by that time.

6 Q. But again, that product did not use XRP or  
7 blockchain tech?

8 A. No.

9 Q. Okay.

03:42 10 A. It didn't use XRP. It used some Bit-Tech  
11 that you could consider blockchain, but it didn't use  
12 any public blockchain.

13 Q. Later, you say -- you know -- I mean, you --  
14 you should read this yourself, four, five, six and  
03:43 15 seven, and then you conclude by saying:

16 "If that succeeds, it would increase their price of  
17 XRP." So I'm trying to figure out what the "that" is  
18 there.

19 A. That is referring to a payment system with  
03:43 20 XRP as an intermediary asset.

21 Q. And why would that increase the price of XRP?

22 A. The thesis that I'm saying here is that that  
23 would create an increase in demand, which could increase  
24 the price.

03:43 25 Q. Okay, and then you say, "Ripple holds a huge

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03:43 1 pile of XRP and will be the dominant XRP holder for the  
2 foreseeable future."

3 What did you mean there?

4 A. I think it's self-explanatory.

03:43 5 Ripple holds an enormous amount of XRP more, than  
6 anyone else and there was no way for Ripple to reduce  
7 that rapidly.

8 Q. Is that still true today, both of those  
9 statements?

03:44 10 A. Yes.

11 Q. Then you say:

12 "We are primarily VC finance and we get revenue  
13 from selling software to banks. We don't use our XRP as  
14 a bank account, but as a strategic weapon."

03:44 15 Can you explain what you mean there by "as a  
16 strategic weapon"?

17 A. I mean we use it to incentivize partners.

18 Q. Can you explain a little more?

19 A. Sure. This -- this model relies on using XRP  
03:44 20 as an intermediary asset. It relies on things like  
21 market makers, and by having XRP, we can do things like  
22 lease it to market makers so that they don't have to  
23 front their own capital, which is not using XRP as a  
24 bank account but as a tool.

03:44 25 Q. So the bank account example is to spend it --

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03:44 1 to sell it and to spend it. This example is to provide  
2 capital to people that might not have capital?

3 A. Right.

4 Q. Okay. Then you say:

03:45 5 "Though we do sell for some revenue, we just don't  
6 need to for salaries or to keep the lights on."

7 A. Yes.

8 Q. Do you see that? Is that still true today?

9 A. I would have to work out the math to tell you  
03:45 10 precisely whether it is or isn't.

11 Q. Right. Is it fair to say that at some  
12 point -- do you know whether at some point Ripple used  
13 XRP as a bank account?

14 MR. CERESNEY: Objection.

03:45 15 THE WITNESS: Over -- over time, our XRP  
16 sales became a more significant source of  
17 revenue.

18 BY MR. TENREIRO:

19 Q. Did that correlate with when the price of XRP  
03:45 20 went up?

21 A. I think it correlates with both the price and  
22 the volume.

23 Q. Then you say:

24 "Anyone who gets XRP from us as part of some deal  
03:45 25 with a lockup has their incentives aligned with ours."

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03:45 1 Just explain: Why does a lockup align -- first of  
2 all, "ours" means Ripple?

3 A. Yes.

4 Q. Okay. Please explain why the lockup aligns  
03:45 5 the incentives of Ripple with "someone who gets XRP from  
6 us as part of some deal."

7 A. If you have XRP and you're not subject to any  
8 sort of agreement that prevents you from selling it, you  
9 don't care about the long-term price. You just care  
03:46 10 about the short-term price. The price goes up to your  
11 target and you sell, and you don't care what happens a  
12 year later.

13 If you are guaranteed to hold an asset over a  
14 period of time, the long-term price becomes more  
03:46 15 interesting to you than the short-term price.

16 Q. By "interesting," you mean more desirable?

17 A. It's more important to you. You would be  
18 more concerned with the long-term price than the  
19 short-term price.

03:46 20 Q. Then you say, "They want the long-term price  
21 of XRP to go up, too."

22 Are you saying Ripple wants the price of XRP long  
23 term to go up, just like the people who are in the  
24 lockup agreements?

03:46 25 A. Yes.

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03:46 1 Q. Okay. Is this a recognition of what we  
2 discussed earlier, that in the long term, Ripple wants  
3 the price of XRP to go up at least as of 2017?

4 MR. GERTZMAN: Objection to the form.

03:47 5 THE WITNESS: Ripple benefits from an  
6 increase in the long-term price of XRP.

7 BY MR. TENREIRO:

8 Q. Is that still true today?

9 A. Yes.

03:47 10 Q. And to the extent that there are -- you know,  
11 I'm just going to use your words.

12 To the extent there are -- anyone who gets XRP from  
13 Ripple is part of some deal with a lockup, are their  
14 interests still aligned with Ripple's today in the price  
03:47 15 going up?

16 A. They share the interest in the long-term  
17 price.

18 Q. Long term?

19 A. At least over the duration of their lockup  
03:47 20 agreement.

21 Q. And the price going up?

22 A. Yes.

23 Q. Okay. To the extent that Ripple's interest  
24 in the long-term price of XRP is for the price to go up,  
03:47 25 is that -- you know, from your understanding of this

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03:47 1 space, the same as the interest of someone who doesn't  
2 have a lockup but may be holding XRP as a long -- for  
3 the long term?

4 A. No.

03:48 5 Q. Why not?

6 A. Because someone is holding for the long term  
7 can sell at any time their sentiments change.

8 Q. What they care about is for the price to go  
9 up between when they buy it and sell it in the long

03:48 10 term; is that what you mean?

11 A. Right, they would prefer a short term  
12 increase over -- they would prefer a short-term increase  
13 even if it's followed by a long-term drop.

14 Q. They don't care after they sell, essentially?

03:48 15 A. Which could be whatever time they decide they  
16 want to leave.

17 Q. Between the time when they buy and when they  
18 decide to leave, are their interests aligned with  
19 Ripple's?

03:48 20 A. No.

21 Q. Why?

22 A. Because Ripple's interested in the long-term  
23 price and they are not.

24 Q. Okay, so Ripple --

03:48 25 Are you saying Ripple does not have any interest in

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03:48 1 the price going up in the short term, as long as it  
2 still goes up in the long-term?

3 A. I'm saying Ripple would not prefer a  
4 short-term rise in price if there's other compensating  
03:48 5 factors that make that worse.

6 We would prefer it in the absence of -- in the  
7 absence of any other [inaudible] with just a short-term  
8 price nothing else happened. There's no reason we  
9 wouldn't prefer that.

03:49 10 Q. I understand there could be worse things that  
11 make it worse, but everything else being equal -- you  
12 know, Ripple's interested in the long-term increase in  
13 the price.

14 Does that mean it's not interested in the long --  
03:49 15 in the short-term interest -- in those -- short-term  
16 rise in the price?

17 A. I don't believe there exist scenarios where  
18 all other things are equal. So when you construct this  
19 scenario, you say, "All things being equal, Ripple would  
03:49 20 prefer this," I don't think there's any realistic  
21 scenario where all other things are equal.

22 There are always other facts that could be averse  
23 to Ripple's interests. For example, a long-term drop in  
24 price.

03:49 25 Q. So a long-term --

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03:49 1 A short-term increase could lead to a long-term  
2 drop in price?

3 A. Absolutely, yes.

4 Q. Any other example of something that might  
03:49 5 have adverse consequences to Ripple following a  
6 short-term increase in price?

7 A. I mean, I can construct a number of  
8 hypotheticals where that could happen.

9 Q. Okay. One second.

03:50 10 (Pause.)

11 MR. TENREIRO: Let's look at Exhibit 23.

12 And for Madam Court Reporter, we will  
13 have to e-mail that one to you. It's  
14 different from the one we e-mailed to you, so  
03:50 15 let's make a note, please.

16 (Thereupon, a multi-page document entitled  
17 "For people asking about 'Coin vs Protocol'"  
18 dated "29 juin" was introduced as DS Exhibit 23  
19 for identification.)

03:50 20 BY MR. TENREIRO:

21 Q. Pages 4 and 5 of 13. This appears to be a  
22 Reddit thread. Four and five.

23 A. Oh, yeah. I don't see -- oh, at the top.  
24 Are you talking about the top of page 5?

03:50 25 Q. Yes. So at bottom, there is an "@JoelKatz."

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03:51 1 A. That is me.

2 Q. And then it continues on page 5. So you say  
3 ... just read what you're responding to, the last  
4 sentence of the comment you responded to.

03:51 5 "I mean, the whole reason most speculators are  
6 buying XRP is due to a perception that it will be  
7 permanently tied to the success of Ripple."

8 Do you see that part?

9 A. I see that.

03:51 10 Q. Is it fair to say that you had an  
11 understanding -- this post appears to be from -- I think  
12 it's 2017. Yeah. In the front page, it's in French,  
13 but I'm sure you can read it. It's June of 2017.

14 A. Yes.

03:51 15 Q. All right. So is it fair to say that in June  
16 of 2017, you, Mr. Schwartz, had an understanding that  
17 some speculators were buying XRP?

18 A. I did believe at the time that some  
19 purchasers purchased for speculative purposes.

03:52 20 Q. I'm sorry, that some purchasers what?

21 A. Purchased for speculative reasons.

22 Q. Are you aware of any efforts that Ripple made  
23 at that time to stop people from purchase for  
24 speculative reasons?

03:52 25 A. I'm not aware of any that had that as a

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03:52 1 specific objective.

2 Q. As opposed to a general objective or what do  
3 you mean?

4 A. Well, for example, if someone was going to  
03:52 5 speculate because of some false information and we were  
6 countering that narrative, that might dissuade them from  
7 speculating.

8 Q. All right, and when you were -- when Ripple  
9 was ... when -- when Ripple was sort of responding to  
03:52 10 what it considered to be actually inaccurate accurate  
11 narratives, was it doing that with the purpose for  
12 dissuading people from speculating?

13 A. If they would have speculated on the base of  
14 a false narrative, absolutely.

03:53 15 Q. Ripple wanted to dissuade people from  
16 speculating on the basis of a false narrative?

17 A. Yes.

18 Q. What steps did Ripple take, if any, to stop  
19 people from purchasing XRP for speculative reasons?

03:53 20 A. I am not aware of any.

21 (Thereupon, an informal discussion was  
22 held off the record.)

23 BY MR. TENREIRO:

24 Q. Okay. You say --

03:53 25 "I wouldn't say permanently" is your first

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03:53 1 response?

2 A. Yes.

3 Q. So does that mean that you agreed that --  
4 that some -- speculators or most speculators were buying  
03:53 5 XRP due to a perception that XRP will be tied to the  
6 success of Ripple, at least for some time?

7 A. No.

8 Q. What does it mean?

9 A. It means that I -- I -- that I am choosing to  
03:54 10 respond to his -- I -- I'm choosing to argue that if  
11 such a thing exists, it would be expected to be reduced  
12 over time.

13 Q. Okay. If such a thing exists?

14 A. Yes.

03:54 15 Q. Okay. Later, you say:

16 "There's no player that plays Ripple's role in XRP  
17 for Bitcoin or Ether."

18 Do you see that?

19 A. Yes.

03:54 20 Q. What does that mean?

21 A. That means there's no party that we know of  
22 that holds -- that both holds that larger fraction of  
23 the native asset and is sort of a participant.

24 Q. Does that remain true today?

03:54 25 A. I don't know.

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03:54 1 Q. Okay. Did it remain true last year?

2 A. I would have thought so at the time, but I  
3 don't know.

4 Q. On the next page, you say:

03:54 5 "For at least the near future, there seems to be  
6 pretty good alignment of incentives between Ripple and  
7 XRP holders. Ripple is the largest XRP holder today.

8 "Ripple will almost certainly hold the significant  
9 share of XRP for years, and XRP is likely to remain  
03:55 10 Ripple's largest asset for years."

11 Can you explain what that meant in 2017?

12 A. Yeah. What that meant is that there is some  
13 alignment of incentives between Ripple and other XRP  
14 holders.

03:55 15 Q. And to the extent Ripple's -- so okay. Which  
16 incentives are aligned?

17 A. They would both want the utility of the  
18 ledger. They would both want more liquidity for XRP.

19 They would have different interests in price,  
03:55 20 Ripple in the long-term price and holders in the  
21 short-term price, but they would have interests in  
22 price.

23 Q. Well -- I'm sorry. How do you know that the  
24 holders have a short-term interest and not long-term?

03:55 25 A. I am assuming these are holders that aren't

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03:55 1 subject to any sort of lockup that will prevent them  
2 from selling their XRP.

3 Q. Does this sort of statement that for at least  
4 the near future -- well, how -- sorry.

03:56 5 The statement "Ripple will almost certainly hold a  
6 significant share of XRP for years" -- does that  
7 statement still hold true today?

8 A. Yes.

9 Q. "XRP is likely to remain Ripple's largest  
03:56 10 asset for years." Still true today?

11 A. Yes.

12 Q. "For at least the near future, there seems to  
13 be pretty good alignment of incentive between Ripple and  
14 XRP holders."

03:56 15 To the extent that -- you know, your answer was  
16 about the incentives with respect to liquidity and  
17 utility, are those still -- still aligned today?

18 A. I'm -- I'm not as convinced today as I was at  
19 that time.

03:56 20 Q. Why?

21 A. Because it doesn't seem necessarily the case  
22 that someone who holds XRP, even if they were interested  
23 in the short-term price, would necessarily care about  
24 things like the utility and liquidity if they don't  
03:56 25 necessarily correlate to short-term price. So they

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03:57 1 might be interested. They might not. But I can't -- I  
2 don't believe today that I can draw a line as brightly  
3 as I thought I could at that time.

4 Q. But I think you said earlier if Ripple sort  
03:57 5 of walked away from XRP, you believe -- you believe  
6 there might be a short-term decrease in price because of  
7 unsettling expectations?

8 A. There could be.

9 Q. So the expectation, as you understand it  
03:57 10 today, is that people -- that Ripple will not walk away  
11 from XRP?

12 A. Right. Just as people don't expect the  
13 Bitcoin Foundation to abandon Bitcoin or the Ethereum  
14 foundation to abandon Ethereum.

03:57 15 Q. And the expectation is that Ripple would not  
16 abandon the XRP Ledger? Not just the XRP, but the XRP  
17 Ledger; is that fair?

18 A. At least not -- not suddenly, or not for no  
19 rational reason.

03:57 20 Q. Okay. Why is it -- I'm sorry.

21 We talked about this already. Let's move to 24,  
22 which I am also going to have to e-mail to Ms. Kerr,  
23 because it's different from what I sent you.

24 (Thereupon, an informal discussion was  
03:58 25 held off the record.)

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03:58 1 BY MR. TENREIRO:

2 Q. It's another Reddit thread. This also  
3 appears to be from -- actually, Jon probably is going to  
4 identify the year, but I can't tell you -- I think it's  
03:58 5 2017 or 2018.

6 (Thereupon, an informal discussion was  
7 held off the record.)

8 BY MR. TENREIRO:

9 Q. November 2017? Okay. This one is called  
03:58 10 "XRP will go to zero, because..."

11 Do you see that?

12 A. Yes.

13 Q. Do you understand this is a reference to the  
14 price of XRP going to zero?

03:59 15 A. I don't think there's a distinction between  
16 the price going to zero and the -- you know, the value  
17 of the ledger or it not having any value, not being  
18 transactable.

19 Q. Okay.

03:59 20 A. Those are all liquidities.

21 Q. This is a short-term reference to the number  
22 zero. Does that reasonably indicate that's a reference  
23 to the price?

24 A. I don't think -- I think in context, nobody  
03:59 25 meant the price might go to zero and then recover. They

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03:59 1 meant like it would die.

2 Q. You're saying both of --

3 Well, the value of the ledger not having any value  
4 would be -- you're saying there's no distinction between  
03:59 5 that and the price of XRP going to zero; is that right?

6 A. I am saying there's no distinction between  
7 the price of XRP going to zero and essentially a failure  
8 of the XRP Ledger system such that you couldn't transact  
9 in XRP, so it wouldn't happen at full price. Again,  
03:59 10 that's a difference between zero and no number.

11 Q. Okay, so then you say:

12 "I will tell you what I think the biggest risks  
13 are. One, someone else does almost exactly the same  
14 thing Ripple does, but does it better.

04:00 15 "This is mitigated by the fact that Ripple has such  
16 talented people and has a lead, but you never know."  
17 What did "the lead" mean there? What lead?

18 A. This was 2017?

19 Q. Uh-huh.

04:00 20 A. It's actually hard for me to say today.

21 Because that was a transition period between a  
22 couple different strategies that it's hard for me to say  
23 today what I meant, but I did believe we were better at  
24 something.

04:00 25 Q. Do you still believe that today? It's true

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04:00 1 today?

2 A. I think that's true with respect to RippleNet  
3 and -- and financial institutions to use digital ledger  
4 technologies. I wouldn't say that's true for  
04:01 5 technologies like the XRP Ledger.

6 Q. And why would -- why would the fact that you  
7 were better at something, whatever that something was,  
8 mitigate against the risk that XRP will go to zero?

9 (Pause.)

04:01 10 THE WITNESS: I -- I -- it looks like in  
11 this post here --

12 Rather than responding to the title of  
13 the thread of why XRP would go to zero, it  
14 looks like I'm more talking about risks to  
04:01 15 Ripple and Ripple's business model, and I'm  
16 not really sure why I'm doing that.

17 I may have answered the question that I  
18 wish was asked rather than the question that  
19 was asked. Oh, I see. Because in the  
04:01 20 question, it says things like "What mistakes  
21 would the Ripple management have to make?"  
22 What --

23 BY MR. TENREIRO:

24 Q. For it to crash?

04:02 25 A. I don't know if that's what I responded to.

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04:02 1 It does look like I more responded to the question I  
2 wish was asked than the question that was actually  
3 asked.

4 Q. What is the question you wish was asked?

04:02 5 A. What the risks were to Ripple or to Ripple's  
6 business model or -- or so on.

7 Q. Why did you wish that question were asked?

8 A. I think that's a question I'm very well  
9 positioned to answer as opposed to opining on the XRP  
04:02 10 ecosystem generally.

11 Q. Let's look at the question. "XRP will go to  
12 zero because ... I read a fair amount of XRP in the past  
13 few months and the overwhelming majority of the  
14 sentiments seem to be positive. While it is easy to see  
04:02 15 why people want to speculate a price of 20 or 30 in the  
16 next year, there has somebody some downsize risk  
17 associated with the currency.

18 "To be clear, I'm bullish on XRP, but I would like  
19 to at least have a handle on what the risks are and what  
04:02 20 could cause it to significantly drop in price in the  
21 coming months/years. What mistakes would the Ripple  
22 management team have to make for it to crash?

23 "What obstacles if not cleared would stop XRP dead  
24 in its tracks? Sorry to take away from the clearly  
04:03 25 positive post, but I feel a clear-headed look at the

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04:03 1 actual risk would do some good."

2 Do you see that?

3 A. Yes.

4 Q. Is it fair to say, just reading this today,  
04:03 5 this entire post was speculating on the price of XRP?

6 A. The question, yes.

7 Q. And is it fair to say --

8 I -- I understand that maybe you were -- so for  
9 in -- for this post, you remember that three years ago  
04:03 10 you were trying to answer a different question than the  
11 one that was asked?

12 A. I don't remember reading the question. I may  
13 not have read the question at this time.

14 I definitely would have read the prior comment,  
04:03 15 assuming that their in the same -- but they are not even  
16 necessarily in the same order now as they were then,  
17 because they are sorted by -- I believe not necessarily  
18 by time.

19 I don't know whether I was responding to the  
04:03 20 question or sub-question, but reading this today, this  
21 more look like what I would have written as a list of  
22 risks to Ripple, but I can't --

23 I -- I really -- I write hundreds and hundreds of  
24 posts. Sometimes I carefully study the thing I'm  
04:04 25 responding to, and sometimes I have a particular point

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04:04 1 that I want to make and I just take advantage of any  
2 opportunity to make the point I wanted to make. This  
3 doesn't read like what I would have said are the biggest  
4 risks to XRP at the time.

04:04 5 Q. What were the biggest risks to XRP at the  
6 time?

7 A. 2012?

8 Q. Uh-huh. We're talking about the price,  
9 because -- I mean, what were the biggest risks to the  
04:04 10 price, as the question posed?

11 A. I think regulatory risk. There was a concern  
12 at the time of whether people trying to use  
13 cryptocurrencies would be money transmitters. I think  
14 that was the dominant concern at that time.

04:04 15 I think there was a concern that -- that crypto --  
16 that the whole cryptocurrency ecosystem could be  
17 abandoned or -- or not used and people just wouldn't be  
18 interested in it or would discover -- you know, some  
19 other system that would work better. I think --

04:05 20 I think a technical problem with the XRP Ledger  
21 that made it unable to move XRP, like at that -- that --  
22 that was so early that we were still worried that  
23 perhaps there might be an actual fundamental problem.  
24 Any technology that's new like this, you worry someone  
04:05 25 might find some fundamental flaw and then, basically,

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04:05 1 the whole sector gets abandoned.

2 Q. So is it fair, though, someone reading this  
3 answer might reasonably assume it relates to speculating  
4 on the price?

04:05 5 MR. CERESNEY: Objection.

6 THE WITNESS: I don't know what context  
7 this answer would have been presented in these  
8 years ago. Like I said, I believe the order  
9 of these responses are changed, so I can't --

04:05 10 I can't tell what you context someone  
11 three years ago would have read this in and  
12 what conclusions they would have drawn on this  
13 one post in isolation.

14 BY MR. TENREIRO:

04:05 15 Q. So is it fair to say you are referring to  
16 risks not just to Ripple, but to XRP itself in your  
17 answer? For example, where you say, "Perhaps some  
18 regulators deem XRP to be a security."

19 A. I actually said that here?

04:06 20 Q. No. 2.

21 A. Oh, I give that as an example, yeah. Sales  
22 to sophisticated investors. Sorry. What was the  
23 question, again?

24 Q. Is it fair to say that you --

04:06 25 While I understand your testimony that you believe

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04:06 1 you're answering a question about risks to Ripple, you  
2 are, in fact, giving examples of risks to XRP? Such as,  
3 for example, the regulatory risk that it might be deemed  
4 to be a security?

04:06 5 A. Well, I say -- I say that regulatory  
6 changes --

7 (Thereupon, an informal discussion was  
8 held off the record with the shorthand  
9 reporter.)

04:06 10 THE WITNESS: In two, I say, "those  
11 regulatory changes that might make Ripple's  
12 business model impractical."

13 BY MR. TENREIRO:

14 Q. So there's a tie there between Ripple's  
04:06 15 business model and XRP; fair?

16 A. No, I don't think that's what's happening.  
17 What I'm saying is if there was some regulatory change  
18 that made Ripple's business model impractical, that  
19 would be bad for Ripple. But Ripple could mitigate that  
04:07 20 by targeting friendlier jurisdictions.

21 Q. One of the risks would be with respect to  
22 regulatory risk over XRP; is that what you're saying?

23 A. If it made Ripple's business model  
24 impractical.

04:07 25 Q. Wouldn't it, at that time?

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04:07 1 A. There could have been regulatory changes that  
2 could have made Ripple's regulatory model impractical.

3 Q. Was XRP being deemed a security one of them?

4 A. I used that as an example here, probably  
04:07 5 because I thought it was implausible.

6 Q. Why did you think it was implausible?

7 MR. CERESNEY: Objection. Only answer if  
8 you can answer that without discussing  
9 discussions with counsel.

04:07 10 THE WITNESS: Well, I hadn't had any  
11 discussions with counsel at that time but it's  
12 hard for me to place in time, but I think  
13 three -- I don't recall whether three years  
14 ago that would have been something I would  
04:07 15 have considered a significant regulatory risk  
16 or not.

17 There was a time I didn't and then there  
18 was a time when I did, and I suspect I was  
19 using this as an example because -- probably  
04:08 20 because I didn't think it was plausible. But  
21 again, there were times I didn't think it was  
22 plausible and times when I did.

23 BY MR. TENREIRO:

24 Q. When were the times you did think it was  
04:08 25 plausible?

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04:08 1 A. More recently.

2 Q. In No. 5, you say:

3 "Someone comes up with a better way to bridge  
4 international payments than using a digital asset and  
04:08 5 Ripple is unable to position XRP."

6 What did you mean by that? How is that a risk to  
7 Ripple?

8 A. It's a risk to Ripple because Ripple wouldn't  
9 have the strategic advantage as it has with XRP, having  
04:08 10 a significant amount that it didn't have to expend  
11 resources to get with any other resource.

12 Q. How -- but -- okay.

13 Now, you preface this by saying that you are  
14 telling someone what you think the biggest risks are,  
04:08 15 right?

16 A. Yes.

17 Q. Why -- why would you list an implausible  
18 example when you're listing the biggest risks?

19 MR. CERESNEY: Objection.

04:09 20 THE WITNESS: Because I didn't think that  
21 that was a significant risk and so I wanted to  
22 use a sort of --

23 There's two aspects to how big a risk is.  
24 There's how probable it is it will occur and  
04:09 25 how much damage it does if it does occur.

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04:09 1                   And I listed two -- well, because other  
2                   people were talking about it and because it  
3                   could cause a significant amount of damage if  
4                   it materializes and because there were a  
04:09 5                   number of different regulatory changes that  
6                   people envisioned at the time.

7 BY MR. TENREIRO:

8           Q.       So you -- you understood however improbable  
9           you believed it to be that it would cause a significant  
04:09 10           amount of damage if XRP was deemed a security under U.S.  
11           law?

12           A.       That's not what I'm saying.

13           What I'm saying is that's one example of a set of  
14           potential regulatory risks which in aggregate pose a  
04:09 15           significant risk.

16           Q.       In aggregate, the regulatory risks together?

17           A.       Yes, and that's why I placed them on this  
18           list, not because there's any one particular risk that I  
19           was specifically concerned about.

04:09 20           Q.       Well, you only placed one on the list, right?  
21           You said, "unfavorable regulatory changes," and then you  
22           gave one example?

23           A.       Right, perhaps.

24           Q.       Okay.

04:10 25                   (Pause.)

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04:10 1 BY MR. TENREIRO:

2 Q. How would "a horrible personal business  
3 scandal affecting key Ripple people" affect XRP?

4 A. There could be reputational damage. People  
04:10 5 could infer -- people could -- people could conclude  
6 that that was like some sort of a stain on XRP itself.  
7 I also point out the risk of the company becoming  
8 toxic for financial institutions to do business with,  
9 meaning the company would also.

04:10 10 Q. Let's move on.

11 (Thereupon, an informal discussion was  
12 held off the record.)

13 MR. TENREIRO: Break time?

14 MR. CERESNEY: Yeah, we've been going for  
04:10 15 more than an hour.

16 MR. TENREIRO: Okay. Let's -- break  
17 time.

18 THE VIDEOGRAPHER: Off the record at  
19 4:10.

04:10 20 (Recess taken at 4:10 p.m.)

21 (Resumed at 4:34 p.m.)

22 THE VIDEOGRAPHER: Back on the record at  
23 4:34.

24 (Thereupon, a 26-page printout entitled  
04:34 25 "Ripple sold \$91.6 million of its digital

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04:34 1 currency XRP last quarter, as the price surged  
2 almost 30,000% - Press - Xrp Chat" was  
3 introduced as DS Exhibit 34 for identification.)

4 BY MR. TENREIRO:

04:34 5 Q. Thank you. Mr. Schwartz, I think we've  
6 handed you Exhibit 34, another chat thread. This one  
7 has 26 pages and I'm going to focus you on page 17, now  
8 we're up to January of 2018. Please take a look --

9 Well, my question is: Is there any other Ripple  
04:34 10 employee or person associated with Ripple that is as  
11 prolific on social media channels as you, as far as you  
12 know?

13 A. I doubt it.

14 Q. Okay. What about Mr. Garlinghouse?

04:34 15 A. He's probably a little less prolific in  
16 total. He's active on Twitter.

17 Q. He's also been around fewer years than you;  
18 is that fair?

19 A. Yes.

04:35 20 Q. All right. Here, you say:

21 "Programmatic literally means they are made by a  
22 program." Are you referring to programmatic sales by  
23 Ripple there?

24 A. Yes.

04:35 25 Q. What knowledge did you have, as time went on,

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04:35 1 about programmatic sales generally? And we can atomize  
2 this, if you like, but timing, price, generally.

3 A. My understanding is programmatic sales are  
4 sales made by market makers who facilitate trades in  
04:35 5 both direction, both buying and selling, that have a net  
6 preference for -- for reducing the amount of XRP they  
7 hold and increasing the amount of fiat that they hold.

8 Q. That's very helpful.

9 As time went on, though, were you being kept  
04:35 10 abreast of -- you know, the parameters of the  
11 programmatic sales at all?

12 A. I believe some summaries or presentations  
13 were made on a dashboard that was available to all his  
14 direct reports. I had access to them. They put up them  
04:35 15 on screens, but I wasn't specifically following them.

16 Q. Have you ever had a decision-making role with  
17 respect to any parameters involving programmatic sales?  
18 Again, being timing, amount, pricing, anything like  
19 that?

04:36 20 A. No.

21 Q. Does Mr. Garlinghouse have any such  
22 decision-making role, as far as you know?

23 A. I don't know.

24 Q. Okay. Do you know who has decision-making  
04:36 25 power over programmatic sales?

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04:36 1 A. My understanding is that the XRP markets team  
2 makes suggestions and then those suggestions would be  
3 circulated to staff and they are generally followed.

4 Q. And is that [REDACTED], now?

04:36 5 A. I don't think so.

6 Q. Who is it?

7 A. I'm not sure. I would have to look at the  
8 organizational chart to tell you for sure.

9 Q. Let's move on and back to the exhibit.

04:36 10 "Ripple employees, third-party market makers  
11 execute these excerpted sales to ensure that we can't  
12 control the timing or the volume to manipulate the  
13 markets for benefit from insider information and to also  
14 ensure that Ripple insiders, including me, can't use  
04:37 15 intimate knowledge of the sales strategy to their own  
16 advantage." Do you see that?

17 A. Yes.

18 Q. How could an insider use intimate knowledge  
19 of the sales strategy to their own advantage?

04:37 20 MR. CERESNEY: Objection to form.

21 THE WITNESS: If you knew precisely how  
22 those trades were being made -- the  
23 information that the market makers would have  
24 like the actual algorithms they used to trade  
04:37 25 those trades -- you could trade against them.

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04:37 1 BY MR. TENREIRO:

2 Q. You could hedge, essentially? You could  
3 arbitrage, rather?

4 A. That would be -- that would be probably the  
04:37 5 most significant. You could arbitrage against them for  
6 personal profit.

7 Q. Why doesn't Ripple want that?

8 MR. CERESNEY: Objection to form.

9 BY MR. TENREIRO:

04:37 10 Q. To the extent that's what you're saying here,  
11 that you have programs to do it -- is that what you're  
12 suggesting, that Ripple does not want that to happen?

13 A. Ripple wouldn't want its own employees like  
14 independently profiting from knowledge that they have  
04:38 15 from their employment.

16 Q. Do you know why not?

17 (Pause.)

18 THE WITNESS: I can't really enumerate it  
19 any more specifically than that.

04:38 20 BY MR. TENREIRO:

21 Q. Well, how about -- I mean, if XRP holders in  
22 the market found out that was happening, would that look  
23 bad for Ripple, do you think?

24 MR. CERESNEY: Objection.

04:38 25 THE WITNESS: I could argue it either

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04:38 1 way.

2 BY MR. TENREIRO:

3 Q. Well, again, from your participation in  
4 social media and things like that, do you have any view  
04:38 5 as to whether if the market understood that Ripple  
6 employees were -- you know, using intimate knowledge of  
7 the sales to their own financial advantage, whether that  
8 would -- you know, be perceived positive or negative?

9 A. I think it would cause reputational harm,  
04:38 10 probably not directly financial harm.

11 Q. Just reputational harm?

12 A. I think that would cause reputational harm to  
13 Ripple.

14 Q. Then, you say:

04:39 15 "These are professional market makers who  
16 understand we don't want to kill rallies." What are you  
17 referring to by "kill rallies"?

18 A. We didn't want to have an impact on the price  
19 of XRP by ourselves.

04:39 20 Q. Then, you say:

21 "or engineered the price but want to sell with  
22 minimal impact."

23 A. Yes.

24 Q. So is it fair to say Ripple didn't want -- to  
04:39 25 rally is a price increase, right?

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04:39 1 A. Right.

2 Q. So Ripple does not -- did not want to sell  
3 into a rally such that it would kill the rally?

4 A. Right.

04:39 5 Q. Is that fair?

6 A. We did not want to have a negative price from  
7 our sales.

8 Q. Why?

9 A. Because we ... I think at that time, our  
04:39 10 concern was that there was -- that there was a dramatic  
11 correlation between those types of actions and price,  
12 and so the price would track our actions.

13 Q. There was a concern?

14 A. Yeah.

04:40 15 Q. By whom or who had that concern?

16 A. I -- I know I did, from the fact that I wrote  
17 this. I don't know that that concern was -- you know,  
18 specifically that it was shared.

19 Q. In this post, are you talking on your behalf  
04:40 20 or are you talking on behalf of the company? You used  
21 the word "we" a number of times.

22 A. Yeah, this is my own, personal -- this is my  
23 own personal view that I'm stating here.

24 I don't know that it was shared by other people at  
04:40 25 the company.

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04:40 1 Q. Now, is it true that Ripple did not have a  
2 decision-making authority over timing or volume of  
3 programmatic sales?

4 A. My understanding at the time was that we did  
04:40 5 not have short-term control over timing or volume.

6 Q. Has your understanding changed since?

7 A. No.

8 Q. Have you since come to understand that Ripple  
9 did, in fact, sell into or related to information that  
04:41 10 was being released into the market about XRP?

11 A. I'm sorry. Could you repeat that?

12 Q. Have you --

13 Since the date of this post, have you come to  
14 understand whether Ripple has in fact sold into the  
04:41 15 release of information about XRP? Sold XRP?

16 A. Into the release of -- sorry. I don't  
17 understand the question.

18 Q. Yeah, so -- it's poorly worded. Have you --

19 Since the date of this post, have you come to  
04:41 20 understand whether Ripple has, in fact, sold XRP in  
21 conjunction with its release of information about XRP?

22 A. No.

23 Q. If that were true, would you consider that  
24 manipulating the market, as you used the terms here?

04:41 25 MR. CERESNEY: Objection.

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04:41 1 THE WITNESS: I would have to look at the  
2 facts and circumstances of the particular  
3 situation.

4 BY MR. TENREIRO:

04:41 5 Q. What do you mean by "manipulate the markets"  
6 in this post?

7 A. What I mean is that Ripple would -- would be  
8 using programmatic sales to engineer some particular  
9 price.

04:42 10 Q. That would be manipulating the market?

11 A. I believe at the time that that would be,  
12 yes.

13 Q. Has that believe changed today?

14 A. I still believe that if Ripple -- if Ripple  
04:42 15 sold with the goal of producing particular pricing  
16 changes, that that -- I would consider that market  
17 manipulation.

18 Q. Let's go to Exhibit 35.

19 (Thereupon, a 10-page printout from  
04:42 20 Bitcoin Forum entitled "Latest posts of  
21 JoelKatz" dated 5/30/17 was introduced as DS  
22 Exhibit 35 for identification.)

23 BY MR. TENREIRO:

24 Q. Let's see if we can get to the end. This is  
04:42 25 going to be a Bitcoin Forum. By the way, before you

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04:42 1 look at it, have I -- is there any forum I haven't  
2 covered?

3 So I've covered Reddit, Bitcoin Forum, Xrp Chat,  
4 Twitter. Am I missing one?

04:42 5 A. There's a Bitcoin Stack Exchange Forum.

6 But most of those posts are about Bitcoin. They're  
7 not as interesting. That would have Ripple-related  
8 posts relating to Ripple or XRP?

9 Q. By you.

04:43 10 A. By me? You certainly got the biggest ones.  
11 I -- I can't think of any others.

12 MR. TENREIRO: Okay. Good job, guys.

13 THE WITNESS: You got Quora? Quora was  
14 on that list, right?

04:43 15 BY MR. TENREIRO:

16 Q. I didn't see it. Quora? Okay.

17 A. If Quora was not on that list, there would  
18 probably be quite a bit on Quora.

19 Q. Okay. All right. So now back to this one.

04:43 20 On page 6, there appears to be a response to you on May  
21 27, 2017 about -- you know, "FUD."

22 So let's just start -- we've had it at another  
23 deposition, but for the record, this one -- what does  
24 "FUD" mean?

04:43 25 A. "FUD" is fear, uncertainty, and doubt.

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04:43 1 Q. And that's a -- sort of a [inaudible]  
2 community term?

3 A. Yes.

4 Q. Something bad, generally speaking?

04:43 5 A. Yes.

6 Q. And bad, because it affects the -- it could  
7 potentially could affect the price of an asset?

8 A. Some people might be concerned for that  
9 reason.

04:43 10 Q. Why was Ripple concerned? Was Ripple  
11 concerned about FUD about XRP?

12 A. Yes.

13 Q. Why?

14 A. Ripple was concerned that people having  
04:44 15 misinformation about XRP or Ripple or Ripple's products  
16 might discourage them using XRP or Ripple's products,  
17 even where that was the best solution to the products  
18 they had.

19 Q. So is it fair to say that Ripple undertook  
04:44 20 efforts to combat FUD with respect to Ripple or XRP?

21 MR. CERESNEY: Objection.

22 THE WITNESS: I would say I certainly  
23 responded to FUD when I saw it and some other  
24 people at the company did.

25

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04:44 1 BY MR. TENREIRO:

2 Q. Who?

3 A. I know [REDACTED] did at the time. I  
4 think Brad did.

04:44 5 Q. Isn't it fair to say that at times, Ripple's  
6 communications department instructed you or suggested to  
7 you that you might combat FUD by making certain Tweets?

8 A. I think there probably were fewer than a  
9 dozen times where Tweets were suggested, and some of  
04:44 10 those -- I mean, I can't say right now whether any of  
11 those were aimed at combating FUD.

12 Q. Okay, so let me try my question again. Is it  
13 fair to say that Ripple undertook efforts, as far as you  
14 know, to combat FUD with respect to Ripple or XRP?

04:45 15 A. Ripple employees responded to FUD on social  
16 media forums.

17 Q. Okay. Here, you say:

18 "Correct. Ripple has consistently defended the XRP  
19 market from dumping by insiders." What do you mean by  
04:45 20 "dumping by insiders"?

21 A. By "dumping by insiders," I mean people who  
22 received large amounts of XRP either from Ripple or from  
23 the creation of the XRP Ledger in the early days selling  
24 large amounts.

04:45 25 Q. And what do you mean, "defend the XRP

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04:45 1 market"?

2 A. What I mean is that --

3 What I mean is that dumping by insiders could  
4 produce people who had very large amounts of XRP that  
04:45 5 they didn't have to spend resources to get, and they  
6 could use that, for example, to spam the XRP Ledger with  
7 large numbers of transactions or other nefarious  
8 purposes.

9 Q. You say:

04:46 10 "We've gone to court to do it, and we've negotiated  
11 the agreements to do it." Do you see that?

12 A. Yes.

13 Q. Has Ripple gone to court to stop people from  
14 spamming the XRP Ledger with transactions?

04:46 15 A. No.

16 Q. Has Ripple gone to court to stop people from  
17 selling XRP?

18 A. Yes.

19 Q. That's [REDACTED]?

04:46 20 A. Yes.

21 Q. Okay. Why is that, defending the XRP market,  
22 stopping [REDACTED] from selling XRP?

23 A. If someone received a large amount of XRP at  
24 a very, very low price, they could use that to spam the  
04:46 25 XRP Ledger.

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04:46 1 Q. How would -- I'm sorry. Was [REDACTED]  
2 spamming the XRP market?

3 A. The concern wasn't that he would. The  
4 concern was that someone who bought the XRP from him  
04:46 5 could.

6 Q. That they could buy it at a very low price?

7 A. Right, and therefore they would -- the cost  
8 to attack the ledger would go down.

9 Q. What was the -- at this time, what was the  
04:46 10 cost per transaction?

11 A. At this time -- this was 2017? I believe at  
12 this time, the -- there was 20 XRP reserve per account,  
13 and the cost per transaction was very, very small, like  
14 a hundred-thousandth of an XRP.

04:47 15 Q. A hundred-thousandth? And the smallest unit  
16 did you say was one one-millionth?

17 A. Correct.

18 Q. So one one-hundred thousandths of an XRP is  
19 called a "drop"?

04:47 20 A. A drop is one one-millionth. A transaction  
21 fee was 10 drops, and I think at that time, it was 10  
22 drops.

23 Q. At some point, it was 20?

24 A. I don't -- I don't really remember. I  
04:47 25 believe it did drop over time, but I can't recall right

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04:47 1 now.

2 Q. Okay, so the concern was --

3 Well, the concern with [REDACTED] selling his XRP  
4 was that someone could acquire it to spam the XRP

04:47 5 Ledger?

6 A. That someone could acquire it at a very low  
7 price, and therefore, the cost to attack the XRP Ledger  
8 would go down.

9 Q. Was he selling it at a very low price?

04:47 10 A. I don't know.

11 Q. And how does that defend the XRP market?

12 A. At the time -- at the time -- actually ...

13 There were times when I believed that failures of  
14 the underlying ledger technology would affect the

04:48 15 markets for assets, and I either believed that at the  
16 time or was expressing that concern here.

17 Q. And were you expressing here that the market  
18 should expect Ripple to stand up to stop any such  
19 potential attacks on the XRP market?

04:48 20 A. I would hope that someone wouldn't draw that  
21 conclusion from this, and what I hoped that they would  
22 conclude --

23 And because I said, "by insiders," what I meant was  
24 we would take care to ensure we didn't cause those types  
04:48 25 of problems; not necessarily we would protect from

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04:48 1 all -- that we wouldn't be a bad actor, not necessarily  
2 that we would affirmatively be some sort of defender.

3 Q. Okay. You wouldn't be a bad actor, because  
4 you would be the largest holder of XRP for many, many  
04:49 5 years?

6 A. Yes.

7 Q. Okay, and you're still the largest holder of  
8 XRP today?

9 A. Yes.

04:49 10 Q. And you expect that to continue for many,  
11 many years?

12 A. Yes.

13 Q. Okay, and is there an entity sort of that you  
14 know of that does engage in this sort of effort with  
04:49 15 respect to Bitcoin?

16 So, for example -- you know, going to court to stop  
17 dumping by insiders?

18 MR. CERESNEY: Objection.

19 BY MR. TENREIRO:

04:49 20 Q. Just that you know of.

21 A. Not that I know of.

22 Q. And what about for Ethereum?

23 A. I don't know the role that the various  
24 institutions inside the system play.

04:49 25 Q. Okay. Let's look at Exhibit 39, please.

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04:50 1 (Thereupon, a 24-page document entitled  
2 "Can the first usage of xRapid actually flood  
3 the market with XRP? - Page 3 - General  
4 Discussion - Xrp Chat" was introduced as DS  
04:50 5 Exhibit 39 for identification.)

6 BY MR. TENREIRO:

7 Q. Back to Xrp Chat. This is 2017 -- November  
8 of 2017, page 16.

9 (Pause.)

04:50 10 THE WITNESS: Yes.

11 BY MR. TENREIRO:

12 Q. Okay, so you're talking about designing  
13 programmatic sales again?

14 A. Yes.

04:51 15 Q. You say:

16 "I admit that I find it" --

17 "I admit that I do find it somewhat difficult to  
18 believe that the effect on price is negligible." Are  
19 you talking there about programmatic sales?

04:51 20 A. Yes.

21 Q. So is it fair to say that at least in 2017,  
22 it is your intuition that Ripple's programmatic sales,  
23 despite being -- you know, channeled through experts,  
24 had some downward effect on the price of XRP?

04:51 25 A. Yes.

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04:51 1 Q. Have you exchanged your mind since then?

2 A. I'm -- I'm less certain now than I was then.  
3 It still doesn't seem intuitively right to me.

4 Q. Okay. Why?

04:51 5 A. Just doing back-of-the-envelope math, just  
6 calculating the -- the -- just from basically just  
7 looking at the percentage of sales of Ripple and trying  
8 to forecast without them there.

9 Q. And then, you say, "My own  
04:51 10 back-of-the-envelope math suggests that the price is  
11 probably about one cent lower now than it would have  
12 been if Ripple stopped its programmatic sales one year  
13 ago."

14 So just in other words, if Ripple had stopped  
04:52 15 selling a year before, perhaps the price of XRP would be  
16 one cent higher than it was at the time?

17 A. Yes, and I explained the methodology here,  
18 which is reconfiguring the market cap with or without.

19 Q. Then, you say:  
04:52 20 "It ignores two ways Ripple sales can put upward  
21 pressure on the price." Do you see that?

22 A. Yes.

23 Q. "One is when Ripple releases XRP, the  
24 overhang of Ripple" -- sorry -- "the overhang of XRP  
04:52 25 Ripple can release in the future is reduced." Do you

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04:52 1 see that?

2 A. Yes.

3 Q. Explain, please, what you mean by the  
4 "overhang of XRP."

04:52 5 A. By the "overhang" here, I mean the risk that  
6 Ripple would sell a large amount of XRP in a short  
7 period of time and reduce the short-term price.

8 Q. So as Ripple has less XRP to sell, the risk  
9 that Ripple will sell a lot of XRP goes down?

04:52 10 A. Right.

11 Q. And that, you believe, might increase the  
12 price of XRP?

13 A. If that overhang is priced in, having a  
14 downward effect, then the absence of that overhang could  
04:53 15 eliminate that downward effect.

16 Q. Was the escrow, in part, designed to  
17 eliminate that overhang effect?

18 A. I think there was a belief that the escrow  
19 could reduce that overhang effect.

04:53 20 Q. And do you -- okay. Then, you say:

21 "The second part is when Ripple gets cash for XRP,  
22 that increases Ripple's ability to executes on its plans  
23 for XRP. If the probability of Ripple's successful  
24 execution of its XRP strategy is part of the price of  
04:53 25 XRP, then growth in Ripple's reward chat should put

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04:53 1 upward pressure on the price."

2           So let me see if I can unpack this part. Are you  
3 saying here that to the extent that part of the price of  
4 XRP is Ripple's chances of successful execution than if  
04:53 5 Ripple has more money to successfully execute a  
6 strategy, that could put upward pressure?

7           Is that what you're saying?

8           A. To that extent, yes.

9           Q. Is the probability of Ripple's successful  
04:54 10 execution of its XRP strategy part of the price of XRP?

11          A. I have not seen evidence that that is the  
12 case.

13          Q. Have you seen evidence that it's not the  
14 case?

04:54 15          A. Yes.

16          Q. What evidence?

17          A. Lack of correlation between news that would  
18 impact Ripple's successful execution of the strategy not  
19 correlating to changes in the price.

04:54 20          Q. And since when did you see that evidence? Is  
21 it after this point?

22          A. It was not -- it was not one particular point  
23 where that evidence -- it's just a gradual accumulation  
24 of evidence that gradually changes my view.

04:54 25          Q. And how --

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04:54 1 When you were doing that analysis, did you  
2 determine -- you know, which news you would expect to  
3 have a price effect that you did not see a price effect?

4 A. We looked at news that we thought would  
04:54 5 impact Ripple's perceived probability of success.

6 Q. Who is "we"?

7 A. Myself and other people at Ripple.

8 Q. Be more specific, please.

9 A. I don't recall who the analysis was done by.

04:55 10 Q. Did it -- did the conversations include  
11 Mr. Garlinghouse?

12 A. I don't believe Mr. Garlinghouse was involved  
13 in the preparation of that information.

14 Q. But the receipt of it? The review of the  
04:55 15 final analysis?

16 A. I believe he would have seen it.

17 Q. What about Mr. Larsen?

18 A. I think it's less likely that he would have  
19 seen it. He was not as actively involved in the company  
04:55 20 at that time.

21 Q. Okay, and we looked at news --

22 I think I'm quoting your answer. "We looked at  
23 news that we thought would impact Ripple's perceived  
24 probability of success." Why Ripple's as opposed to  
04:55 25 XRP's?

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04:55 1           A.     Well, the question here is whether -- the  
2       question you asked about is whether the probability  
3       of -- whether changes in the probability of Ripple's  
4       successful execution of its XRP strategy is part of the  
04:55 5       price of XRP.

6           So for that analysis, you would look at news events  
7       that impact the perception of Ripple's successful  
8       execution of its XRP strategy.

9           Q.     Is it fair to say that sometimes Ripple made  
04:56 10       announcements of business activities that did not have  
11       to do with XRP?

12          A.     Yes.

13          Q.     And did you --

14                When you analyzed the effect or lack of effect, did  
04:56 15       you consider those news events as moments when you  
16       analyzed whether there was a correlation?

17          A.     We looked at both of those as two hypotheses.  
18       One, that people -- that Ripple's probability of success  
19       generally was a factor in the price of XRP and one that  
04:56 20       the success of Ripple's XRP strategy affected the  
21       price -- was a factor in the price of XRP.

22                So those are two separate hypotheses. One is sort  
23       of a subset of other.

24          Q.     Yeah, and you've concluded there's no  
04:56 25       correlation with respect to both the hypotheses?

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04:56 1 A. We were unable to find any consistent  
2 correlation. There were one or two incidents where  
3 there -- there did seem to be correlation in time and  
4 very short-term spikes in price, but not enough to draw  
04:56 5 a conclusion.

6 Q. What were those?

7 A. I -- I cannot remember. I -- I know -- I  
8 know the instances that we looked at included things  
9 like -- things like the MoneyGram partnership  
04:57 10 announcement, but I --

11 I don't recall which were the two -- there were two  
12 cases where there was a correlation in time. I don't  
13 remember what those two incidents were.

14 Q. Was one of them the escrow announcement?

04:57 15 A. I'm sure that's one of the ones we looked at.  
16 I don't remember whether that's one of the ones where we  
17 did see a short-term increase or not.

18 Q. Who would have the sort of results of this  
19 analysis or where is it?

04:57 20 A. I don't know.

21 Q. Does the company have it?

22 A. Yeah, I would assume so, but I don't know for  
23 sure.

24 Q. Was listing on the exchanges one of the  
04:57 25 events you looked at?

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04:57 1 A. We did look at listing on -- listings on  
2 exchanges to see if we saw a correlation in price.

3 Q. Do you recall reaching a conclusion?

4 A. My recollection was there was in the early  
04:57 5 days, particularly when one listing was -- if  
6 cryptocurrency has only two listings, the third listing  
7 could be significant, and there were these short-term  
8 spikes in price, and then over time, the market didn't  
9 seem to care anymore. Even for cryptocurrencies that  
04:58 10 had very few listings in the market. The one exception  
11 was a cryptocurrency's very first listing.

12 Q. Okay.

13 A. Because there kind of wasn't a price before  
14 that, so you almost can't even make a comparison.

04:58 15 Q. What was your first listing?

16 MR. CERESNEY: "Yours" meaning?

17 BY MR. TENREIRO:

18 Q. XRP's.

19 A. XRP's? This is going way back. I think it  
04:58 20 might have been a company called [REDACTED] which doesn't  
21 exist anymore.

22 Obviously, that was a very significant listing, but  
23 there were no significant exchanges at that point at  
24 that time.

25

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04:58 1 Q. Yeah. The point you're making here, about  
2 "When Ripple releases XRP, the overhang of XRP Ripple  
3 can release in the future is reduced" --

4 Is that point still true today to the extent that  
04:58 5 overhang is priced in Ripple reducing the amount of XRP  
6 it holds might have upward pressure on the price?

7 A. To the extent that's produced in, it would  
8 have -- it could have some upward pressure.

9 Q. Do you have any views what that's priced in  
04:59 10 today?

11 A. It should be, but it's not.

12 Q. What about the second point, the probability  
13 of Ripple's successful execution of its XRP strategy? I  
14 understand your correlation point.

04:59 15 A. Yeah.

16 Q. Do you have an understanding whether that's  
17 priced into the price of XRP?

18 A. I don't think so, because you would expect  
19 there to be more of -- if it was priced in, a change in  
04:59 20 it should change the extent to what it's priced in, and  
21 we haven't seen that.

22 So I think while those are reasonable things to  
23 expect, the evidence, surprisingly, doesn't support  
24 those views. At least, surprising to me.

04:59 25 Q. And did you consider the impact of Ripple's

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04:59 1 sales of XRP into the market that the time as -- you  
2 know, whether they would have an effect on price?

3 A. At this time, I personally did that  
4 back-of-the-envelope calculation, essentially  
04:59 5 imagining -- basically, running a counterfactual where  
6 Ripple doesn't engage in those trades and assuming all  
7 other trades are equal.

8 Q. Sorry. I think I was not clear. So when  
9 you're doing --

05:00 10 You said people at Ripple did analysis of the  
11 correlation and found maybe there were a couple  
12 instances where there were some, but less correlation  
13 than you expected?

14 A. Right.

05:00 15 Q. Okay. When you were doing that analysis, did  
16 you sort of control for the fact that Ripple might have  
17 been making sales into the market such that those sales  
18 might be putting some downward pressure on the price, as  
19 you intuitively suggest here?

05:00 20 MR. CERESNEY: Objection to the form.

21 THE WITNESS: I -- I don't know.

22 BY MR. TENREIRO:

23 Q. You don't know if you included that or not,  
24 if you controlled for that or not?

05:00 25 A. I did not look closely at the analysis.

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05:00 1 Q. Do you think that's something you should look  
2 at if you're doing that correlation analysis?

3 MR. CERESNEY: Objection.

4 THE WITNESS: I'm not an economist,  
05:00 5 but -- I don't know what you should control  
6 for.

7 BY MR. TENREIRO:

8 Q. Okay, and you also don't know who has the  
9 company's results of the analysis; is that right?

05:01 10 A. I don't know.

11 Q. Could you figure that out by like searching  
12 your e-mail or -- I'm just trying to figure out how I  
13 would get my hands on that. Perhaps the wrong use of --

14 MR. CERESNEY: Objection.

05:01 15 MR. TENREIRO: Perhaps the wrong use  
16 of --

17 MR. CERESNEY: For several reasons.

18 THE WITNESS: I -- I have a recollection  
19 that I saw the report, but it may just be that  
05:01 20 it was discussed. I don't know -- I'm not  
21 even positive I saw the actual document.

22 I know there was a meeting where the  
23 conclusions were discussed. My recollection  
24 is that that was [REDACTED] meeting, but I'm  
05:01 25 not sure at this point.

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05:01 1 BY MR. TENREIRO:

2 Q. Okay. All right. Let's look at Exhibit 52.

3 (Thereupon, a 10-page document entitled "I

4 am David Schwartz, Chief Cryptographer at

05:01 5 Ripple. AMA!" was introduced as DS Exhibit 52

6 for identification.)

7 BY MR. TENREIRO:

8 Q. There's a Reddit, "AMA," meaning "Ask me

9 anything," right?

05:01 10 A. Uh-huh. Yes.

11 Q. Okay, and this appears to be --

12 This is 50 pages, and I've only printed 10 of them

13 to save some trees, and I'm going to ask you about pages

14 3, 6, and maybe 9. Sorry, 8. I believe this is from

05:02 15 2018.

16 (Thereupon, an informal discussion was

17 held off the record.)

18 MR. CERESNEY: Is this printed out in the

19 sequence which the questions and answers

05:02 20 occur? Do you know, Jon?

21 MR. DANIELS: I believe these are

22 uploaded. These are based on votes. It's not

23 really a conversation.

24 MR. CERESNEY: And it --

05:02 25 Would Mr. Schwartz's response be to the

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05:02 1 question immediately before? I'm just asking  
2 because if it's showing him an excerpt, I just  
3 want to make sure the rest of it's not --

4 MR. TENREIRO: My belief --

05:02 5 My understanding is his responses are --  
6 as you see here, his responses are the most  
7 popular -- you know, upvoted responses to the  
8 original post.

9 MR. CERESNEY: Okay, but -- but is --

05:03 10 Can you see the questions to which he's  
11 responding in this -- in the printout?

12 MR. TENREIRO: Yeah. It's not questions.  
13 He responds to --

14 He can correct me if I am wrong. There's  
05:03 15 a post that's made that I believe he started.  
16 "I am the Chief Cryptographer and one of the  
17 the original architects," and then people  
18 comment.

19 There's 520 comments. People start  
05:03 20 upvoting the comments that are responding to  
21 his post, and then he responds to a comment.

22 MR. CERESNEY: Okay. So what I'm  
23 saying --

24 MR. TENREIRO: It's not questions he's  
05:03 25 responding to. It's more comments.

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05:03 1 MR. CERESNEY: But you have the comment  
2 he's responding to in this comment?

3 MR. TENREIRO: Yes. It's right above his  
4 post.

05:03 5 BY MR. TENREIRO:

6 Q. Mr. Schwartz, did you understand that to be  
7 the presentation as I described it?

8 A. Yes.

9 Q. Okay. So, for example, just to start as an  
05:03 10 example, on page 3, in the middle, [REDACTED] says,  
11 "Hi, David. [REDACTED] mentioned (in the interview at  
12 Google) that 'XRP is not static' and open for  
13 improvement. Could you elaborate on the possibilities?"

14 Then you say:

05:04 15 "Ripple has a team of talented developers working  
16 on improving the scalability and reliability of the XRP  
17 Ledger."

18 I'm not going to read all of it, but just sort of  
19 reading that, do you understand that seems to be a  
05:04 20 response to the "Hi, David" comment above?

21 A. Yes.

22 Q. Okay, so what are you talking about there?  
23 What is Ripple's team of talented developers doing  
24 there?

05:04 25 A. Making the ledger more powerful, increasing

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05:04 1 its feature set. I cite specifically features like  
2 payment channels and escrows that originated at Ripple.

3 Q. On page 6, you say in the middle:

4 "XRapid is our first enterprise product delivering  
05:04 5 payments bridged by XRP."

6 Can you explain what that means?

7 A. Yes. The thesis behind xCurrent and the  
8 RippleNet strategy was to enable enterprises to bridge  
9 payments using XRP. XRapid actually delivered on that.

05:05 10 Q. That was the first time that there was a  
11 product that was using XRP, potentially?

12 MR. CERESNEY: Objection.

13 THE WITNESS: That was that first time  
14 there was a Ripple product that used XRP to  
05:05 15 bridge off ledger payments.

16 BY MR. TENREIRO:

17 Q. As opposed to the exchange we discussed?

18 A. The decentralized exchange, which could  
19 bridge on the payments.

05:05 20 Q. Okay, so on page 9, you say:

21 "I think three things really set XRP apart from any  
22 other digital asset. One is the amazing team of  
23 dedicated professionals that Ripple has managed to  
24 unmask the valid ecosystem around XRP."

05:05 25 Why is Ripple's team setting XRP apart from other

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05:05 1 assets?

2 MR. CERESNEY: Hold on. I think you said  
3 page 9.

4 MR. TENREIRO: It's page 8.

05:05 5 THE WITNESS: Starts on page 8.

6 MR. CERESNEY: Hold on, David. Take a  
7 look at that.

8 BY MR. TENREIRO:

9 Q. Yeah, take a look.

05:05 10 A. So the question I'm responding to is really  
11 specifically focused on the difference between [REDACTED]  
12 and Ripple --

13 Q. Uh-huh.

14 A. -- and the core difference between [REDACTED]  
05:06 15 and Ripple is the team that built the ledger went on to  
16 work at Ripple.

17 Q. Well, you say:

18 "I think three things really set XRP apart from any  
19 other digital asset." You say your testimony is just  
05:06 20 setting it apart from [REDACTED]

21 A. No. I think -- I think I'm -- I think I  
22 picked that -- I think one of the reasons I picked that  
23 particular thing like to list first and to call out was  
24 because of this particular combination of [REDACTED]

05:06 25 But I do agree that you could -- you could make a

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05:06 1 similar comparison with any other digital asset and  
2 there will be differences. You know, there would be  
3 differences, so this is also something that will set XRP  
4 apart, perhaps not the same extent as other digital  
05:06 5 assets.

6 Q. Those include Bitcoin and Ethereum?

7 A. Yes.

8 Q. Let's move on to Exhibit 57.

9 (Thereupon, a 38-page document entitled  
05:06 10 "Why the world needs Ripple XRP - Whitepaper"  
11 dated January 15, 2020" was introduced as DS  
12 Exhibit 57 for identification.)

13 BY MR. TENREIRO:

14 Q. If Ripple sort of disappeared today,  
05:07 15 what's -- what's -- what do you think would happen to  
16 the ODL product?

17 A. I don't think the ODL --

18 MR. CERESNEY: Objection. Objection. Go  
19 ahead.

05:07 20 THE WITNESS: I don't think the ODL  
21 product coexist without Ripple, because it's a  
22 Ripple product.

23 BY MR. TENREIRO:

24 Q. In what ways does Ripple -- you know, help  
05:07 25 the existence of the ODL product?

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05:07 1 A. Well, Ripple developed the software. Ripple  
2 owns the software. It's a proprietary Ripple product,  
3 so someone else who wanted to continue it would have to  
4 develop the software themselves to meet the requirements  
05:08 5 of the product.

6 Q. Are there other ways in which Ripple makes  
7 efforts with respect to the product other than  
8 developing the software?

9 A. (No response).

05:08 10 Q. I think you mentioned some partnerships with  
11 exchanges. Are there other things that Ripple does with  
12 respect to the --

13 A. Ripple pitches the products to customers,  
14 gets them to sign contracts and so on.

05:08 15 Q. Relationships with market makers for  
16 liquidity on certain corridors?

17 A. For corridors that -- yeah, the rate would  
18 not be as high without those market makers.

19 Q. And do you --

05:08 20 Would the product be viable without those  
21 product -- those market makers? At least, on the U.S.  
22 dollar/Mexican peso corridor?

23 MR. CERESNEY: Objection.

24 BY MR. TENREIRO:

05:08 25 Q. As far as you know?

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05:08 1           A.     I think the --  
2           I think today, the USD/MXN peso corridor would be  
3     viable at a lower volume level without -- without Ripple  
4     incentivizing the market makers.

05:08 5           Q.     And when did that "today" start?

6           A.     I would say probably roughly a year ago, but  
7     again, I would have to look at the volume number to say.  
8           Those payments had to be fairly small. They tend  
9     to be around \$300 or so, which means you don't need that  
05:09 10    much liquidity in that market.

11          Q.     The market makers buy XRP for Mexican pesos?

12          A.     Yes.

13          Q.     On that side of the tranche?

14          A.     Yes. They buy XRP, and they provide the  
05:09 15    Mexican pesos that are delivered to the recipient.

16          Q.     Where do they get the Mexican pesos from?

17          A.     Whatever sources they have. Probably foreign  
18     exchange.

19          Q.     Like a foreign exchange with a bank or ...

05:09 20          A.     I mean, I'm -- I'm speculating. I'm  
21     speculating, here.

22                   MR. CERESNEY: And so therefore?

23                   THE WITNESS: Yeah, I can --  
24                   I could speculate where they would get  
05:09 25     them from, but --

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05:09 1 MR. CERESNEY: But you're not going to.  
2 THE WITNESS: -- wherever market makers  
3 will get Mexican pesos from.  
4 BY MR. TENREIRO:  
05:09 5 Q. Do you know in this context?  
6 A. I don't.  
7 Q. Okay. Let's move on.  
8 So what I have is Exhibit 57. I wanted you to look  
9 at pages 19 and 21, please. This one is called "Why the  
05:10 10 World Needs Ripple XRP."  
11 A. Yes.  
12 Q. You know, in the middle you say:  
13 "In practice, we probably have a lot of power right  
14 now." Is that power over the Ripple Ledger? Is that --  
05:10 15 A. Which page?  
16 MR. CERESNEY: Nineteen.  
17 THE WITNESS: Yeah, and I clarify  
18 precisely what I mean in the next sentence.  
19 "We could probably do some evil at the  
05:10 20 margins for a short period of time," so  
21 that -- that's about sort of short-term  
22 operational, yeah.  
23 BY MR. TENREIRO:  
24 Q. Yeah, but if you did something evil, people  
05:10 25 would stop following you, essentially, is what you're

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05:10 1 saying?

2 A. Right. We would immediately lose that power.

3 Q. And that's probably still true today, to the  
4 extent you have any power?

05:11 5 A. Right.

6 Q. So Ripple's incentivized by sort of market  
7 reactions to not do something "evil"?

8 A. Yeah.

9 Q. Later, you say:

05:11 10 "On the other hand, we do hold an awful lot of XRP.  
11 We could, for example, crash the market for XRP by  
12 selling a huge amount in a short period of time. That  
13 will hurt us more than anyone else."

14 Why is that the case? Or why was that the case in  
05:11 15 2017?

16 A. Because we hold more XRP than anyone else  
17 does.

18 Q. But why would crashing the price help -- hurt  
19 you?

05:11 20 A. That could impact the long-term price, which  
21 would mean that we couldn't use our XRP for any of the  
22 business purposes that we talked about.

23 Q. Including revenue and developing uses?

24 A. It would include all of them.

05:11 25 Q. Is that still true today, that if you did

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05:11 1 something to crash the market for XRP by selling a huge  
2 amount, that would hurt you more than anyone else?

3 A. I believe so.

4 Q. For the same reasons we just discussed, your  
05:11 5 inability -- you couldn't use your XRP for any of the  
6 business purposes that we talked about?

7 A. Right.

8 Q. Okay. Then, you say:

9 "Our comment has demonstrated to date precisely the  
05:12 10 opposite. We've worked to lock up XRP and we've  
11 discussed our plans for how we will release XRP to the  
12 world."

13 What do you mean there?

14 A. What I mean is that we've acted in our own  
05:12 15 interest.

16 We haven't -- we haven't done long-term damage to  
17 the XRP ecosystem, because we have an incentive not to  
18 do that.

19 Q. Later, you say:

05:12 20 "If you think we will be good stewards and our  
21 plans are likely to build them in, then you will tend to  
22 expect the price to go up."

23 Please explain that.

24 (Pause.)

05:12 25 THE WITNESS: I think at that time I did

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05:13 1 believe the prices were responsive or would be  
2 responsive to -- to specific factors of the  
3 individual projects.

4 BY MR. TENREIRO:

05:13 5 Q. And why you expressing these views publicly?  
6 (Pause.)

7 BY MR. TENREIRO:

8 Q. Other than to annoy Mr. Ceresney?

9 MR. CERESNEY: If you recall.

05:13 10 (Pause.)

11 THE WITNESS: I mean, I ... I don't know  
12 why I was saying that in this particular  
13 context at this -- at that time.

14 BY MR. TENREIRO:

05:13 15 Q. Okay. Are you aware of Ripple pausing or  
16 stopping programmatic sales to stabilize the price of  
17 XRP?

18 A. I am aware that Ripple paused programmatic  
19 sales at some point. I'm not sure why.

05:14 20 Q. Are you aware of any programmatic purchases  
21 to stabilize and increase the price of XRP?

22 A. No.

23 Q. Okay.

24 A. Well, I'm -- I am aware -- programmatic  
05:14 25 purchases? No.

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05:14 1 Q. Okay. Let's put that aside, Mr. Schwartz.  
2 At any point --

3 At any point in time -- and then we can be more  
4 specific, but at any point in time, did you have a view  
05:14 5 as to whether increasing the use cases for XRP could  
6 increase its demand?

7 A. Yes.

8 Q. Do you still hold that view today?

9 A. I hold the view that that may become true at  
05:14 10 some time in the future but is not currently true and  
11 hasn't been in most -- in the past.

12 Q. Then it could become true that increasing the  
13 use cases for XRP could potentially increase the demand  
14 for XRP?

05:15 15 A. Yes, at some future point.

16 Q. Is Ripple still engaged in efforts to  
17 potentially increase the use for XRP?

18 MR. CERESNEY: Objection. Objection.

19 BY MR. TENREIRO:

05:15 20 Q. Okay.

21 A. Ripple is still -- has -- still has engineers  
22 who are developing the XRP Ledger, but Ripple releases  
23 software that enables people to use the XRP ledger and  
24 so on.

05:15 25 Q. So is that a "yes"?

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05:15 1 A. Yes.

2 MR. CERESNEY: I think he's answered the  
3 question.

4 BY MR. TENREIRO:

05:15 5 Q. Well, is Ripple still engaged in efforts to  
6 potentially increase the uses?

7 I just want to understand whether releasing  
8 software that enables people to use the software  
9 ledger --

05:15 10 Are you saying that also could increase the use of  
11 XRP itself?

12 A. It --

13 MR. CERESNEY: So -- hold on. Objection  
14 to the form. I think that was a compound  
05:15 15 question.

16 If you can rephrase the question, he can  
17 answer the question.

18 BY MR. TENREIRO:

19 Q. All right, so my question was: Is Ripple  
05:16 20 still engaged in efforts to potentially increase the use  
21 for XRP?

22 Your answer -- paraphrasing -- was about engineers  
23 enabling people to use the software ledger, so my  
24 question is slightly different.

05:16 25 Is Ripple still engaged in efforts to potentially

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05:16 1 increase the use of XRP itself?

2 MR. CERESNEY: Objection.

3 THE WITNESS: I listed things that we're  
4 doing. I don't know that I would characterize  
05:16 5 them that way.

6 BY MR. TENREIRO:

7 Q. How would you characterize those?

8 So releasing software, for example, that enables  
9 people to use the software ledger, you would not  
05:16 10 characterize it as potentially increasing the use of XRP  
11 itself?

12 A. I -- I would say that making it easier for  
13 people to use the XRP Ledger could increase their use of  
14 the XRP Ledger or XRP itself.

05:16 15 Q. Is it your testimony Ripple currently is more  
16 focused on increasing the use of the XRP Ledger than the  
17 use of XRP?

18 (Pause.)

19 THE WITNESS: I don't know that I said  
05:17 20 that, but I would agree with that statement.

21 (Thereupon, a 34-page document entitled  
22 Ripple: 'The fundamental Value of XRP' - Page 5  
23 - Press - Xrp Chat" was introduced as DS Exhibit  
24 40 for identification.)

05:17 25 BY MR. TENREIRO:

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05:17 1 Q. Let's look at Exhibit 40, please, another  
2 chat from December 2017.

3 MR. CERESNEY: What page are we on?

4 MR. TENREIRO: This one will be 17.

05:17 5 (Pause.)

6 BY MR. TENREIRO:

7 Q. It seems like the post is or the comment is:  
8 "My basic understanding is that a higher price for  
9 XRP will create more liquidity, less friction, and  
05:18 10 greater capacity in the network. I know using XRP=good,  
11 but can an expert please educate us, technologically  
12 speaking?"

13 And I think you responded:

14 "A higher price tends to correlate with more  
05:18 15 liquidity. It's not really a direct cause and effect  
16 relationship, but they tend to move in tandem."

17 What is the base for that statement?

18 A. As I've explained --

19 Actually, I've explained that in several other  
05:18 20 places, but the idea is that the higher the value of an  
21 asset is, there tends to be more liquidity.

22 It's easiest to understand if you think of very  
23 extreme cases, like trying buy a house with Bitcoin when  
24 Bitcoin was a dollar versus when Bitcoin was \$60,000.

05:18 25 Q. You need fewer Bitcoins?

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05:18 1 A. Right, and therefore, the market can more  
2 easily supply them, even though it's the same price  
3 value, yeah.

4 Q. You say next:

05:18 5 "The ideal situation for Ripple would be an  
6 increasing price over the long term with few downward  
7 spikes." Why? Why do you say that?

8 A. Because that would maximize the value that  
9 Ripple would be able to get for the XRP it holds, and it  
05:19 10 would also increase other people's desire to receive XRP  
11 to incentivize partnerships and so on.

12 Q. Would it also increase Ripple's revenue, as  
13 you say in the next statement?

14 A. Yes. A long-term increase in price would  
05:19 15 increase the value that Ripple could get themselves.

16 Q. Later, you say:

17 "This is my kind of dream scenario for XRP.  
18 Companies that have to make payments around the world  
19 buy XRP at below market by facilitating other people's  
05:19 20 payments and using XRP to make payments below market,  
21 because they only have to pay from the 'from XRP' half.

22 All those piles of XRP people are holding increase  
23 demand, increasing price, reducing the holding cost of  
24 XRP to zero or negative."

05:20 25 So are you explaining here that as companies might,

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05:20 1 for example, buy XRP in something like an ODL  
2 transaction, that would increase the demand and  
3 therefore the price of XRP?

4 MR. CERESNEY: Objection.

05:20 5 THE WITNESS: No, that's not what I'm  
6 saying.

7 BY MR. TENREIRO:

8 Q. What are you saying?

9 A. I'm saying that if people held XRP to make  
05:20 10 their payments, that would increase the value of XRP.

11 Q. And the price? Increased demand, increasing  
12 price, correct?

13 A. Well, preventing a decrease in price.

14 Q. So even though it says here "increasing  
05:20 15 price," you mean -- what you're saying is you mean at  
16 least keeping the price the same?

17 A. Right, and that's why I say, "holding cost of  
18 XRP to zero," warning. The concern is that it not be  
19 dropping in price, not that it necessarily be increasing  
05:20 20 in price.

21 Q. Later, you say:

22 "Ripple's preferred price of XRP is as high as  
23 possible, preferably increasing."

24 A. Right.

05:21 25 Q. What do you mean there?

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05:21 1 A. If the price -- I don't believe this is a  
2 possible scenario, but if the price of XRP were reliably  
3 increasing over the long term, that would not only  
4 maximize what Ripple could get by selling their XRP but  
05:21 5 also the holding cost of the XRP would be zero or  
6 negative. There would be no obstacle as using XRP as a  
7 payment source.

8 Q. Let's look at Exhibit 58, please.  
9 (An informal discussion was held off the  
05:21 10 record.)

11 (Thereupon, a three-page document entitled  
12 "Considering that the banks don't use XRP coins  
13 for their transactions, how can the XRP price go  
14 high even if the banks adopt the Ripple  
05:21 15 platform?" dated 11/12/17 was introduced as DS  
16 Exhibit 58 for identification.)

17 BY MR. TENREIRO:

18 Q. Towards the bottom, you say:  
19 "If Ripple is successful getting XRP used as a  
05:22 20 vehicle asset in international payments, new corporates  
21 like AirBNB" -- I'm skipping the parenthetical -- "could  
22 significantly add to the demand for XRP."

23 Do you see that part?

24 A. Yes.

05:22 25 Q. What do you mean there? Well, let me try to

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05:22 1 short-circuit this -- you know, but please answer fully.

2 Is this the same concept we discussed about if  
3 someone needs to utilize the asset, that could increase  
4 its demand for the asset?

05:22 5 A. Yes, this is the same idea.

6 Q. Later, you say at the bottom:

7 "These forces could be expected to increase the  
8 price of XRP."

9 So is this an -- is there an expression of the idea  
05:22 10 that this demand could also lead to an increase in the  
11 price of XRP?

12 A. Yes.

13 Q. Then, you say:

14 "At least, that's what Ripple's betting on. After  
05:23 15 all, the reason we're doing this is to increase the  
16 demand for XRP to increase the value we can extract from  
17 our stash of XRP."

18 Do you see that?

19 A. Yes.

05:23 20 Q. What did you mean, "the value we can  
21 extract"?

22 A. I can't tell you, sitting here today, what I  
23 meant four years ago in that sentence.

24 Q. Does Ripple itself use XRP to bridge  
05:23 25 payments?

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05:23 1 A. The ODL product does. That's a Ripple  
2 product, so Ripple's customers. Yeah, there's an  
3 interaction there.

4 Q. Right, and so MoneyGram -- let's -- I know.  
05:24 5 When MoneyGram was using ODL -- you know, they were  
6 relying on the ODL product to sort of, I guess, further  
7 their business, one might say?

8 A. Right.

9 Q. But was Ripple -- you know, engaged in this  
05:24 10 type of -- those type of transactions itself?

11 A. Not to my knowledge.

12 Q. Okay. To the extent -- you know, banks might  
13 use the xCurrent product, is Ripple itself using that  
14 platform as opposed to selling it or licensing it?

05:24 15 A. No.

16 (Thereupon, a Ripple document entitled  
17 "Where a community about your favorite things is  
18 waiting for you" dated 22 Jun 2017 was  
19 introduced as DS Exhibit 59 for identification.)

05:24 20 BY MR. TENREIRO:

21 Q. Okay. Let's take a look at Exhibit 59. This  
22 has a lot of pages. I'm just going to ask you about the  
23 first one.

24 A. Yes.

05:25 25 Q. Why are you talking about "how big you want

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05:25 1 to dream" here?

2 The question is: "Mathematically speaking, what is  
3 the highest price Ripple could potentially get to?" and  
4 you start by saying, "It all depends how big you want to  
05:25 5 dream."

6 A. Yes.

7 Q. Why would you be dreaming about how high the  
8 price -- it says "Ripple" here, but I assume it's really  
9 a reference to XRP?

05:25 10 A. Yeah. I'm not sure of the date on this.

11 Q. June -- June 2017.

12 A. Yeah, I believe I assumed they meant XRP.

13 Q. Why?

14 A. Because I don't know what else would have a  
05:25 15 price.

16 Q. So you're talking about dreaming big with  
17 respect to the price of XRP?

18 A. As I understood the question, mathematically  
19 speaking -- it requires a sort of mathematical analysis,  
05:25 20 and in order to do that, you have to sort of --

21 In talking about how high something can go, you  
22 have to sort of imagine -- you have to construct -- you  
23 have to construct scenarios from the most plausible to  
24 the -- you know, less plausible.

05:26 25 Q. Were you ever instructed by someone at Ripple

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05:26 1 not to tout XRP as potentially increasing in price?

2 MR. CERESNEY: Objection.

3 THE WITNESS: Not that I recall.

4 BY MR. TENREIRO:

05:26 5 Q. Did you have an understanding that sort of  
6 talking about potential increase in price could make XRP  
7 more attractive to investors or speculators?

8 MR. CERESNEY: Objection.

9 THE WITNESS: I think it stands to reason  
05:26 10 that talking to -- that talking about an  
11 increase in price would be make something more  
12 attractive to speculators.

13 BY MR. TENREIRO:

14 Q. Did that matter to you either way?

05:26 15 A. No. I just answered the question.

16 Q. The question that the person posed?

17 A. Yes.

18 Q. Did you -- you know, understand whether  
19 making this kind of statement could have consequences in  
05:26 20 terms of the legal status of XRP under the U.S.  
21 securities laws?

22 A. I'm sure I wasn't thinking about that at the  
23 time.

24 Q. Okay. Let's go to Exhibit 61, and then we'll  
05:27 25 take a break.

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05:27 1 (Thereupon, a four-page document entitled  
2 "Forbes - The Bear Case for XRP - Page 3 - Press  
3 - Xrp Chat" was introduced as DS Exhibit 61 for  
4 identification.)

05:27 5 BY MR. TENREIRO:

6 Q. Exhibit 61 is, I think, an excerpted chat.  
7 Let's see. "Forbes - The Bear Case for XRP." Do you  
8 recall that article in Forbes?

9 A. Yes.

05:27 10 Q. Okay. It's on page 3. On December 20th,  
11 2017, you say:

12 "There are a few technical errors, but I think the  
13 key thing is to look at his thesis."

14 A. Yes.

05:27 15 Q. "He seems to concede that Ripple is building  
16 a better payments system that banks will use." I'm  
17 skipping. Then, you say:

18 "Nevertheless, he's arguing that despite being able  
19 to build massive payments volume, having influence over  
05:27 20 almost every aspect of the system, with a phenomenal  
21 team, a warchest with a notional value in the tens of  
22 billions, and every incentive to make it happen, and we  
23 still won't be able to get XRP to be used as a  
24 settlement asset."

05:28 25 Then, you kind of have what I will describe as sort

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05:28 1 of a rhetorical conclusion to your statement. What do  
2 you mean by "influence over almost every aspect of the  
3 system"?

4 A. I believe what I meant there was this was  
05:28 5 specifically talking about Ripple's payment network, and  
6 I meant we choose the customers. We write the software.  
7 We develop the software.

8 Even -- you know, RippleNet is a Ripple product.  
9 It's -- it's inside Ripple's control in ways that the  
05:28 10 XRP Ledger is not.

11 Q. The "warchest with a notional value in the  
12 tens of billions" -- does that refer to the holdings of  
13 XRP that Ripple had?

14 A. That refers to multiplying the current price  
05:28 15 of XRP times the amount of XRP that Ripple had. That's  
16 why I say, "notional."

17 Q. Then "every incentive to make it happen."  
18 What does that refer to, that sentence?

19 A. That was Ripple's strategy at the time, was  
05:29 20 to build that payment network. That was what we were  
21 focused on.

22 Q. I just want to understand.

23 When you say, "incentives," are you talking  
24 financial incentives or is there something else there  
05:29 25 that's incentivizing Ripple? For example, does it

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05:29 1 include reputational incentives?

2 A. I think it would, but I think I was  
3 primarily --

4 I think I had financial incentives in mind there,  
05:29 5 but certainly, other type of incentives probably to a  
6 lesser extent as well.

7 Q. Could you --

8 If you have any in mind, could you give them to me,  
9 please? Other type of incentives that are not financial  
05:29 10 ones?

11 A. Initially -- initially, all I was thinking  
12 about financial incentives, yes.

13 Q. Okay.

14 A. But there are also reputational incentives as  
05:29 15 well.

16 MR. TENREIRO: All right. Let's take a  
17 break. I just want to see how much time we  
18 have left.

19 THE VIDEOGRAPHER: Going off the record,  
05:29 20 5:29.

21 (Recess taken at 5:29 p.m.)

22 (Resumed at 5:45 p.m.)

23 THE VIDEOGRAPHER: Back on the record at  
24 5:45.

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05:45 1 BY MR. TENREIRO:

2 Q. So Mr. Schwartz, is it fair to say over the  
3 course of certain years, you held the view that Ripple's  
4 efforts to develop a use for XRP might potentially  
05:46 5 increase demand and therefore the price of the asset?

6 A. There were times when I believed that -- that  
7 the price and demand could be influenced by what Ripple  
8 was doing to build a use case for XRP.

9 Q. Is it fair to say that, as we've seen over  
05:46 10 the course of some exhibits today, you expressed that  
11 belief publicly on a number of occasions?

12 A. Yes.

13 Q. Okay. Based on your interactions aligned  
14 with people interested in the XRP markets or in Ripple  
05:46 15 generally, did you come to any conclusions as to whether  
16 individuals who participate in this market had come to a  
17 adopt your own belief that price could be influenced by  
18 what Ripple was doing to build a use case for XRP?

19 A. I don't know.

05:47 20 Q. Okay. Did you at times have a concern as to  
21 when XRP or the sales of XRP, to be more precise, could  
22 be deemed to be the sales of a security under U.S.  
23 federal law?

24 A. Yes.

05:47 25 MR. CERESNEY: Objection.

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05:47 1 BY MR. TENREIRO:

2 Q. When did that concern arise?

3 A. It would have been as soon as I would -- it  
4 would have been shortly before this litigation  
05:47 5 commenced.

6 Q. What about with -- shortly before this  
7 litigation commenced? Okay.

8 Did you have a concern that XRP sales being deemed  
9 the sales of a security would harm Ripple's ability to  
05:47 10 sell XRP?

11 MR. CERESNEY: Objection.

12 By the way, you can answer this if it's  
13 not influenced by discussions with counsel.

14 THE WITNESS: I didn't know that it  
05:47 15 could -- that it could cause harm, but I was  
16 concerned that it could potentially.

17 BY MR. TENREIRO:

18 Q. In terms of the ability to sell specifically  
19 or other harm?

05:48 20 A. Well, I didn't know -- let me back up a  
21 little bit.

22 It's always been an objective for both Ripple and  
23 myself through Ripple to distribute XRP, and we don't  
24 have an effective distribution currently other than  
05:48 25 sales.

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05:48 1           So if our ability to sell XRP is impacted, then we  
2 would have no other way to distribute it, and that would  
3 essentially freeze the distribution of XRP.

4           Q.     Have you ever had an effective distribution  
05:48 5 mechanism other than sales?

6           A.     Yes.

7                         MR. CERESNEY:  Objection.

8 BY MR. TENREIRO:

9           Q.     What was that?  The giveaways?

05:48 10          A.     The giveaways.

11          Q.     That was in what year?

12          A.     I believe they --

13                 Well, they must have started in early 2012, but I  
14 think they geared up more -- you know, in 2013 or so.

05:48 15          Q.     Did they stop at some point?

16          A.     Yes.

17          Q.     When?

18          A.     I believe the GitHub giveaway was the last  
19 giveaway we did, but I don't recall the timeline.

05:49 20          Q.     Other than the giveaways and the sales, has  
21 Ripple ever had another effective distribution method  
22 for XRP?

23          A.     I would say --

24                 I would say using it to invest would be another one  
05:49 25 and then giving it to partners to incentivize -- you

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05:49 1 know, various different behaviors.

2 (Thereupon, an informal discussion was  
3 held off the record.)

4 BY MR. TENREIRO:

05:49 5 Q. A moment ago, you said you don't have an  
6 effective distribution other than sales.

7 So are you saying at some point, you had an  
8 effective distribution method such as investing, but you  
9 don't have that anymore?

05:49 10 A. I -- I think that to the extent that -- I --  
11 yeah, I -- I'm not being very precise. Let me be a  
12 little more precise.

13 I would expect that if it impacted our ability to  
14 sell XRP, it would also impact our -- I think "sell"  
05:50 15 would be broad enough to cover those other forms of  
16 distribution that would impact as well. I don't think  
17 it would discriminate in fact some of those means of  
18 distribution and not others.

19 Q. Some of them are sales for other -- let's say  
05:50 20 like cash or fiat. Some of them are distributions as  
21 investments or partnerships? That's what you mean?

22 A. Right.

23 Q. Okay, and if I mention something -- you know,  
24 if I say, "the Perkins Coie memos," do you know what I'm  
05:50 25 talking about?

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05:50 1 A. Yes.

2 Q. What's that?

3 A. There were two memos that Perkins Coie  
4 prepared for -- I believe it was OpenCoin at the time  
05:50 5 but eventually became Ripple, an opinion on the legal  
6 risks and implications of what -- what OpenCoin became  
7 Ripple was planning to do at that time.

8 Q. Did you read those memos?

9 A. I was given one of those two memos at the  
05:50 10 time, and I believe I read it briefly at the time, but  
11 I -- I didn't look at it closely.

12 Q. So is it fair to say that because you didn't  
13 look at it closely, after reading it -- well, did you --

14 After reading it, however closely you read it, did  
05:51 15 you have any concern as to whether sales of XRP could be  
16 sales of securities under U.S. law?

17 A. That was not a concern of mine at that time.

18 Q. Okay. Did you ever share those memos with --

19 Did you ever share either of the memos with  
05:51 20 anybody?

21 A. I didn't.

22 Q. Did anyone else at Ripple?

23 A. My understanding was that at least one of  
24 those memos was -- was intended to be shown to potential  
05:51 25 investors, but I don't know for sure that it was

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05:51 1 actually shown to them or which.

2 Q. Where are the memos like kept? Are they on  
3 like a share drive somewhere at Ripple?

4 A. I don't know.

05:51 5 Q. If you wanted to look for them now, what  
6 would you do?

7 A. I would look on the -- the Google documents  
8 on the Google drive that I have access to.

9 Q. That's a shared Ripple Google drive?

05:51 10 A. Yes.

11 Q. Do you know if they are there or not?

12 A. I have not searched for them.

13 Q. I just want to make sure I understand what  
14 you're saying. You are saying they could be there; you  
05:52 15 just haven't looked?

16 A. Right.

17 Q. Are there other legal memos in there?

18 A. I have not searched for any legal memos, so I  
19 don't know.

05:52 20 Q. Does Mr. Garlinghouse have access to that  
21 drive?

22 A. I don't know.

23 Q. Well, he's your direct report, so have you  
24 ever like put a document in it for him to look at?

05:52 25 Sorry. You report to him, rather?

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05:52 1 A. The way I would do it is I would generally  
2 designate particular people to have access to the  
3 document as opposed to a group generally.

4 So it could be the document is there but he wasn't  
05:52 5 given access to it, for example.

6 Q. Did you engage in efforts --

7 Did you assist Ripple in efforts with respect to  
8 getting exchanges to list XRP?

9 (Pause.)

05:52 10 THE WITNESS: The only thing that I ever  
11 did to assist exchanges in listing XRP is  
12 respond to technical questions that they may  
13 have had, at least to my recollection.

14 BY MR. TENREIRO:

05:53 15 Q. Did Ripple engage in efforts to get exchanges  
16 to list XRP?

17 A. I believe --

18 I believe employees of Ripple talked to exchanges  
19 about listing XRP.

05:53 20 Q. Why?

21 A. I think the hope was that more listings would  
22 open up additional corridors for ODL.

23 (Thereupon, an e-mail chain with the top  
24 e-mail dated 7/13/18 from Brad Garlinghouse to

05:53 25 [REDACTED] et al., "Subject: [REDACTED]

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05:53 1 decision" was introduced as Exhibit DS 63 for  
2 identification.)

3 BY MR. TENREIRO:

4 Q. Let's look at Exhibit 63. This is a one-page  
05:53 5 e-mail from Mr. Garlinghouse to you. July 13th, 2018 at  
6 the bottom.

7 He says, "The more I process [REDACTED] decision,  
8 the more I think we need to get more aggressive and  
9 educate the industry on key variables that are  
05:54 10 apparently getting little attention."

11 What is [REDACTED] decision?

12 A. I believe this was [REDACTED] decision not to  
13 list XRP, but I'm not sure.

14 Q. Why did Ripple care about that decision?

05:54 15 A. Because [REDACTED] decision was based on a  
16 decision that it was not decentralized.

17 Q. And did you become more aggressive in  
18 educating the industry on key variables after that?

19 A. I think we were aggressive beforehand and  
05:54 20 aggressive afterwards. I don't know that there was any  
21 specific change.

22 Q. Were you aggressive in terms of messaging  
23 your views about whether or how much the XRP Ledger was  
24 decentralized?

05:55 25 A. I think that's a fair characterization of my

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05:55 1 social media postings.

2 Q. And was Ripple aggressive on that point as  
3 well, beyond just your postings?

4 MR. CERESNEY: Objection.

05:55 5 MR. GERTZMAN: Objection to the form.

6 THE WITNESS: Ripple did circulate a  
7 number of documents, discussing the  
8 decentralization parameters and the status of  
9 the XRP Ledger.

05:55 10 BY MR. TENREIRO:

11 Q. What was the purpose of distributing these  
12 documents?

13 A. The purpose of distributing those documents  
14 was to ensure that market actors like [REDACTED] had  
05:55 15 accurate information when they made these kind of  
16 decisions.

17 Q. And why did Ripple care about that?

18 MR. GERTZMAN: Objection to the form.

19 THE WITNESS: Ripple was working to  
05:55 20 increase utility, liquidity, and adoption of  
21 the XRP Ledger at the time and concerns about  
22 centralization were a drag on adoption.

23 BY MR. TENREIRO:

24 Q. At the top, Mr. Garlinghouse says --  
05:56 25 essentially paraphrasing, he wanted everyone's help

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05:56 1 understanding what happened, and what the implications  
2 are, and what we can do to attack the problem.

3 Do you see that?

4 A. Yeah, I see that now.

05:56 5 Q. Did you come to a conclusion as to what the  
6 implications of [REDACTED] decisions could be for Ripple  
7 or XRP?

8 A. I don't know if it was a consequence of this,  
9 but at some time, we were concerned -- we were hoping  
05:56 10 that [REDACTED] might be an ODL partner -- obviously, if  
11 they don't list the asset.

12 It's hard for me to say in time, but -- that  
13 certainly would have been a major concern at one point  
14 in time, but I don't remember if that was specifically  
05:56 15 connected with this decision.

16 Q. Let's look at Exhibit 64, please.

17 (Thereupon, an e-mail chain with the top  
18 e-mail dated 7/14/18 from Brad Garlinghouse to  
19 Chris Larsen et al. document was introduced as  
05:57 20 DS Exhibit 64 for identification.)

21 BY MR. TENREIRO:

22 Q. All right. So this is a Saturday, July 14th  
23 e-mail, so it's the day after the e-mail we just looked  
24 at. Mr. Garlinghouse e-mails you and Mr. Larsen,  
05:57 25 "Agenda Bullet Points."

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05:57 1 Do you know why he was e-mailing you and  
2 Mr. Larsen?

3 A. No.

4 Q. Below, [REDACTED] writes:

05:57 5 "Exchanges, U.S., [REDACTED]" -- I'm skipping,  
6 obviously. Further down, it says "[REDACTED]"  
7 What is "[REDACTED]"

8 (Pause.)

9 THE WITNESS: I don't -- I don't know.

05:58 10 BY MR. TENREIRO:

11 Q. Do you see where it says "Not listing at the  
12 moment due to litigation and lack of legal opinion from  
13 us"?

14 Do you see that?

05:58 15 A. Yes.

16 Q. Then it says "[REDACTED]" -- need regulatory  
17 clarity." Do you see that?

18 A. Yes.

19 Q. Did you come to understand exchanges -- at  
05:58 20 least some exchanges did not list XRP because of lack of  
21 a legal opinion from Ripple?

22 A. I was -- I was not aware that was an issue  
23 with any exchange until I saw this document.

24 Q. So in 2018 or do you mean now?

05:58 25 A. Now.

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05:58 1 Q. Okay. Did you ever discuss that issue with  
2 anyone?

3 A. No.

4 Q. Do you know if Ripple provided legal opinions  
05:58 5 to these exchanges?

6 A. I don't.

7 Q. Did there come a point in time that you  
8 believed XRP was not a security because of the FinCEN  
9 settlement?

05:59 10 MR. CERESNEY: Objection.

11 THE WITNESS: I -- I did believe XRP not  
12 a security both before and after the  
13 settlement.

14 BY MR. TENREIRO:

05:59 15 Q. So the FinCEN settlement does not change your  
16 view?

17 A. The FinCEN settlement was consistent with my  
18 view, and so I became perhaps more firmly convinced, but  
19 it did not significantly change my view.

05:59 20 Q. And what knowledge of the securities law did  
21 you have such that you came to that conclusion after the  
22 FinCEN settlement?

23 A. Only what I saw from what people discussed on  
24 social media regarding the cryptocurrency space.

05:59 25 Q. And the base of forever your view before the

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05:59 1 FinCEN settlement that was not a security was also based  
2 on what you saw on social media regarding the  
3 cryptocurrency space?

4 A. Yes.

05:59 5 Q. Was it based on conversations with lawyers at  
6 all?

7 A. No.

8 Q. At some point in time -- let's go to Exhibit  
9 80.

06:00 10 (Thereupon, a two-page e-mail chain with  
11 the top e-mail dated 6/20/18 from [REDACTED]  
12 to [REDACTED].com was introduced as DS Exhibit  
13 80 for identification.)

14 (An informal discussion was held off the  
06:00 15 record.)

16 BY MR. TENREIRO:

17 Q. It's a two-page -- I think it's sort of a  
18 Google Docs compendium.

19 A. Yes.

06:00 20 (Pause.)

21 BY MR. TENREIRO:

22 Q. You say:

23 "I think it would make sense to list some of the  
24 factors Hinman cited on this chart, particularly the  
06:00 25 ones that we do well on."

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06:00 1 Do you see that?

2 A. Yes.

3 Q. What are the factors Hinman cited? What are

4 you talking about?

06:00 5 A. I don't recall.

6 From this document, it says Hinman cited some

7 factors on a chart, so I presume I had that in front of

8 me, but I don't recall.

9 Q. "Hinman" being an SEC person?

06:00 10 A. Yes.

11 Q. Are you aware that he made a speech sometime

12 around June 2018 about the status of Ethereum?

13 A. Yes.

14 Q. Did you read it?

06:01 15 A. No.

16 Q. Okay. So here you are sort of preparing some

17 document, it seems?

18 A. I think that was more just making

19 suggestions.

06:01 20 Q. Suggestions for what?

21 (Pause.)

22 BY MR. TENREIRO:

23 Q. Well, who is [REDACTED]?

24 A. My recollection is that [REDACTED] worked for

06:01 25 Ripple Comms at the time.

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06:01 1 Q. It says:  
2 "Warren and David: Can you please help populate  
3 this chart with the criteria and data points? Ideally,  
4 we want to tell the story that if we believe Bitcoin and  
06:01 5 Ethereum are decentralized, then the facts also point to  
6 the XRP Ledger being decentralized."  
7 A. Yes, I see that.  
8 Q. Okay. So does this refresh your memory as  
9 to -- who were you telling the story to?  
06:02 10 A. I -- I -- I think anyone -- anyone,  
11 particularly regulators.  
12 Q. So you prepared talking points for  
13 regulators?  
14 A. I wouldn't say it was -- I wouldn't say it  
06:02 15 was talking points, but it was more just an analysis of  
16 how we -- how we felt XRP -- the XRP Ledger did on the  
17 Hinman factors.  
18 Q. But you didn't read the Hinman factors?  
19 A. I believe I had that chart, so I knew what  
06:02 20 the factors were. But I did not review them in detail,  
21 so it looks like I selected certain factors from  
22 those -- from that.  
23 Q. Why are you selecting particularly the ones  
24 that "We do well on," and I -- I mean -- I presume "we"  
06:02 25 means XRP?

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06:02 1 A. Yeah. I do sometimes think because of my  
2 involvement with the XRP Ledger from the early days, I  
3 sometimes do -- I kind of think of it like in a  
4 person -- in that personal way.

06:02 5 Q. Okay. Why are you selecting particularly the  
6 ones that XRP does well on?

7 A. At the time, there were a number of factors  
8 that people considered relevant for decentralization,  
9 some of which that I felt were relevant and many of  
06:03 10 which that I felt were a distraction -- were not very  
11 relevant. And in particular, I felt that the ones that  
12 were relevant were ones by which the XRP Ledger did  
13 extremely well.

14 Q. As to whether it was centralized or not?

06:03 15 A. Yes, that's correct.

16 Q. And then you go -- you know, you list some  
17 questions and answers, but you don't answer the last --  
18 the last one on this page:

19 "Are independent actors setting the price or is the  
06:03 20 promoter supporting the secondary market for the asset  
21 otherwise influencing trading?"

22 Why didn't you answer that one?

23 A. I didn't feel like I was the person to answer  
24 that, but I felt that that was a factor we should  
06:03 25 address.

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06:03 1 Q. And was that factor --  
2 Did Ripple or XRP do well on that factor at that  
3 time, in June of 2018?  
4 A. Yes, there were a number of exchanges listing  
06:03 5 XRP, and that was a robust secondary market.  
6 (Pause.)  
7 MR. TENREIRO: One second.  
8 (Thereupon, an informal discussion was  
9 held off the record.)  
06:04 10 (Thereupon, an e-mail dated 7/23/18 from  
11 [REDACTED] to Brad Garlinghouse et al. was  
12 introduced as DS Exhibit 66 for identification.)  
13 BY MR. TENREIRO:  
14 Q. Let's look at Exhibit 66, please. On Exhibit  
06:04 15 66, there's this "[REDACTED]" Can you state for the record  
16 what is [REDACTED]  
17 A. [REDACTED] is a digital asset exchange.  
18 Q. And what participation, if any, did you have  
19 with -- you know, this application?  
06:05 20 A. I believe this particular one I just  
21 reviewed.  
22 Q. Okay. Seems like there's an attachment here,  
23 "Supplemental Documentation, B5 Legal Opinion"?  
24 A. It says so here, yes.  
06:05 25 Q. What legal opinion was this?

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06:05 1 A. I don't know.

2 Q. What other exchange received a legal opinion  
3 from Ripple?

4 A. I don't know of any exchange receiving a  
06:05 5 legal opinion.

6 Q. What exchanges did Ripple represent to that  
7 it had received a legal opinion to?

8 A. I don't know.

9 Q. Why would Ripple provide a legal opinion or  
06:05 10 as to what would Ripple provide a legal opinion to these  
11 exchanges?

12 MR. CERESNEY: Objection. He just said  
13 he doesn't know of any legal opinion being  
14 provided.

06:05 15 MR. TENREIRO: And I asked, "Why would  
16 Ripple provide a legal opinion?"

17 MR. CERESNEY: Can you answer the  
18 question?

19 THE WITNESS: Not without speculating.

06:06 20 MR. GERTZMAN: Objection.

21 BY MR. TENREIRO:

22 Q. Do you know this reference, "B5 legal  
23 opinion"? Do you know what it is?

24 A. I don't.

25

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06:06 1 Q. Okay. Let's move on. Do you know what the  
2 [REDACTED] is?

3 A. I believe that's a company that Ripple had  
4 used as a -- either for public relations or  
06:06 5 communications.

6 Q. Okay. Why did Ripple hire them?

7 MR. GERTZMAN: Objection to the form.  
8 BY MR. TENREIRO:

9 Q. What interactions, if any, have you had with  
06:06 10 the [REDACTED]?

11 A. That I'm not sure.

12 Q. I'm sorry. You're not sure what interactions  
13 you've had, because you can't identify who worked for  
14 them; is that right?

06:06 15 A. Right. In other words, I've had meetings  
16 with people who may have been with the [REDACTED], but  
17 I can't place who's with what.

18 Q. Do you know where they worked out of? Did  
19 they work out of Ripple's offices?

06:07 20 A. I don't think so. I don't believe so, but I  
21 don't know.

22 Q. Do you know who they report to, if anyone?

23 A. I sus- -- I believe they report either  
24 directly or indirectly to [REDACTED].

06:07 25 Q. That's the Comms person at Ripple?

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06:07 1 A. Right, exactly. Because we use them for  
2 Comms. That would have been her, but they would have  
3 been reporting indirectly.  
4 (Thereupon, an e-mail dated 4/18/17 from  
06:07 5 [REDACTED] to [REDACTED] et al.,  
6 "Subject: Please don't comment on this XRP Chat  
7 post" was introduced as DS Exhibit 31 for  
8 identification.)  
9 BY MR. TENREIRO:  
06:07 10 Q. Let's look at Exhibit 31, please.  
11 (Pause.)  
12 BY MR. TENREIRO:  
13 Q. This is an April 2017 e-mail. Do you know  
14 who [REDACTED] is?  
06:08 15 A. Yes.  
16 Q. Who is it?  
17 A. She was a product manager who, I believe, at  
18 this time was supporting the C++ team.  
19 Q. Those are the programmers?  
06:08 20 A. Yes.  
21 Q. She says, "I know you are very active on Xrp  
22 Chat forum and it's good to have employee presence  
23 there, but please don't comment on this post regarding  
24 Ripple XRP lockup plans." Is that a reference to the  
06:08 25 time release or escrow?

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06:08 1 A. I believe so.

2 Q. Do you know why she asked you not to comment?

3 (Thereupon, an informal discussion was  
4 held off the record re: Zoom interference.)

06:08 5 THE WITNESS: I think she had a concern  
6 over either incorrect information or piecemeal  
7 release of information.

8 BY MR. TENREIRO:

9 Q. Is it fair to say that to the extent you  
06:08 10 reported to Mr. Larsen or Mr. Garlinghouse various  
11 times, they were aware of your -- the fact that you had  
12 an active -- you know, online presence?

13 MR. CERESNEY: Object to form.

14 THE WITNESS: Yes.

06:09 15 BY MR. TENREIRO:

16 Q. And what's the basis for you -- what's the  
17 basis for your answer? How do you know that they were  
18 aware?

19 MR. CERESNEY: Objection.

06:09 20 THE WITNESS: We -- we would sometimes  
21 respond to each other's posts on Twitter --  
22 each other's tweets, and sometimes we would  
23 talk about each other -- each other's social  
24 media posts.

25

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06:09 1 BY MR. TENREIRO:

2 Q. That includes Larsen and Garlinghouse posts?

3 A. I don't know that I ever had that  
4 conversation with Chris Larsen, but I -- I don't know  
06:09 5 for sure he's aware. It would be very surprising to me  
6 if he wasn't.

7 Q. Why would you be surprised if he wasn't?

8 A. Just because I believe it's generally known,  
9 so even though I didn't discuss it with him.

06:09 10 (Thereupon, an e-mail dated 2017-12-21  
11 from [REDACTED] to David Schwartz et al.  
12 was introduced as DS Exhibit 47 for  
13 identification.)

14 BY MR. TENREIRO:

06:09 15 Q. Okay. Let's go to Exhibit 47.  
16 It's a December 2017 e-mail. I'm not sure why it  
17 doesn't have a Bates number, but it's from [REDACTED]  
18 [REDACTED] --

19 A. Yes.

06:10 20 Q. -- at the [REDACTED] to you.  
21 "Hi, David. Sharing a suggested tweet below to  
22 amplify the announcement that XRP is on 50 exchanges."  
23 What is that about?

24 A. This is a suggested --  
06:10 25 This is a case where someone at Ripple who

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06:10 1 apparently works for the [REDACTED] but has an  
2 @Ripple.com address is asking me to tweet something.

3 Q. Wait. Where is the @Ripple e-mail address?  
4 It says from "[REDACTED]" --

06:10 5 A. Oh, I guess not. I thought she was a Ripple  
6 employee, but I guess not.

7 Q. So it says "Tweet: \$XRP is more accessible  
8 than ever - listed on 50 exchanges with more coming."  
9 Did you make that tweet?

06:10 10 A. I don't recall.

11 Q. Do you know why they asked you to make that  
12 tweet?

13 A. Looks like there's an "insights" post.

14 Q. "Insights" post --

06:11 15 A. Yes.

16 Q. -- meaning?

17 A. That's a collection of posts that Ripple  
18 makes on various subjects, and they wanted me to draw  
19 attention to this one.

06:11 20 Q. Do you know why, though, they wanted you to  
21 draw attention to this one?

22 A. No.

23 Q. Why would anyone in the market want to know  
24 about accessibility of XRP?

06:11 25 MR. CERESNEY: Objection.

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06:11 1 MR. GERTZMAN: Objection to form.

2 THE WITNESS: If you were --

3 If you were going to build a project on  
4 the XRP Ledger that used XRP, a concern might  
06:11 5 be that it would be difficult for people to  
6 obtain it.

7 MR. CERESNEY: Are you speculating?

8 THE WITNESS: Yeah, I'm speculating.

9 BY MR. TENREIRO:

06:11 10 Q. I'm asking you:

11 Did you ever discuss with the Hatch people or  
12 anyone at Ripple why they were asking?

13 You know, "Look. It's my Twitter account. Why are  
14 you asking me to tweet these things? Why does anybody  
06:12 15 care?"

16 A. No, I never asked.

17 Q. Did you have your own view as to why they  
18 might want you to make these tweets?

19 A. Yes.

06:12 20 Q. What is that view? Your own view?

21 A. My view is that it's difficult to use XRP in  
22 a project if the people who are using that project can't  
23 easily get access to XRP.

24 Q. Okay, and do you know if Ripple also -- in  
06:12 25 addition to tweeting out to the -- you know, world, also

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06:12 1 maybe e-mailed potential project users to let them know  
2 that XRP was now on the exchange?

3 A. Not to my knowledge.

4 (Thereupon, an e-mail dated 2018-01-09  
06:12 5 from [REDACTED] to David Schwartz et al.  
6 was introduced as DS Exhibit 48 for  
7 identification.)

8 BY MR. TENREIRO:

9 Q. All right. Let's look at Exhibit 48. It's  
06:12 10 another proposed tweet.

11 (Pause.)

12 THE WITNESS: Yes.

13 BY MR. TENREIRO:

14 Q. Did you tweet this?

06:13 15 A. I don't know.

16 Q. Do you agree with this statement?

17 "You're right. It's not like Bitcoin, and it isn't  
18 meant to be"?

19 A. Without seeing the tweet that I'm responding  
06:13 20 to, it's hard for me to know what -- what I'm  
21 necessarily agreeing with here.

22 Q. Do you agree with the statement "Ripple is  
23 decentralized and recently placed 55 billion in escrow  
24 to create certainty of the supply"?

06:13 25 A. No, because in 2018, I don't think -- I don't

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06:13 1 think I would have used the term "Ripple."

2 "@Ripple" here is Ripple's corporate Twitter  
3 handle. Ripple is a company and is not decentralized.

4 Q. What is the fact of how --

06:13 5 How does 55 billion XRP being in escrow have to do  
6 with centralization or decentralization?

7 A. Some people, particularly -- some people  
8 connect with -- as a decentralization factor the  
9 distribution of the token.

06:14 10 Q. The token has been distributed?

11 A. Right, the amount of distribution of the  
12 token. I don't, but I don't always push back on it,  
13 because you can't fight every battle every day.

14 Q. When you say that the supposed -- the  
06:14 15 proposed tweet says "real financial institutions are  
16 using it," what is "it" there?

17 A. I think that -- I would have to speculate.

18 Q. Don't speculate. Did you --

19 Did you ever have any concerns that -- you know,  
06:14 20 Ripple's public statements at times might be creating  
21 confusion between Ripple and XRP?

22 A. No.

23 Q. You know, here do you know what "[REDACTED]  
24 refers to?

06:15 25 A. It refers, to, I believe, an ODL partner.

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06:15 1 Q. Okay. Did you ever --  
2 Did there come a time when Ripple's Comms people  
3 might have sort of worked with you to identify -- to  
4 evaluate sort of your Twitter followers?

06:15 5 A. Yes.

6 Q. What was the purpose of that?

7 A. I think the purpose of that was we had -- we  
8 had received an allegation, essentially, that there were  
9 bots following me that were trying to amplify or promote  
06:15 10 Ripple or XRP in a -- in an abnormal or unfair way, and  
11 we wanted to determine if that was true or not.

12 Q. For what purpose?

13 A. Well, if it was true, we would want to see if  
14 there was something we could do about it, and if it  
06:15 15 wasn't true, we would have wanted to potentially counter  
16 the narrative.

17 Q. And what did you conclude? Was it or was it  
18 not?

19 A. We concluded there were bots following me,  
06:16 20 but most of the -- more of the bots were sort of anti.  
21 They were FUD -- bots creating FUD.

22 But by the time we had the analysis complete,  
23 nobody was particularly interested in the allegation  
24 anymore. It didn't seem useful to dredge up a false  
06:16 25 allegation, to rebut it when the allegation then went

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06:16 1 away.

2 Q. Got it. Let's go to --

3 Let me just ask you a couple questions. What is  
4 the purpose of the Xpring initiative?

06:16 5 A. Initially, the Xpring initiative was like a  
6 venture capital arm of -- for Ripple to get us access to  
7 being close so we could see what was going on in the  
8 industry, perhaps steer projects in better directions,  
9 perhaps combat projects.

06:16 10 At the time, this was during the ICO craze. We  
11 felt that that was harmful and we were trying to steer  
12 projects away from that, and later it sort of changed.  
13 It changed over time.

14 Q. Let's take a look at Exhibit 68 and 69.

06:17 15 Sorry, 68.

16 (An informal discussion was held off the  
17 record.)

18 (Thereupon, an e-mail chain with top  
19 e-mail dated 7/18/19 from Brad Garlinghouse to  
06:17 20 David Schwartz" was introduced as DS Exhibit 68  
21 for identification.)

22 BY MR. TENREIRO:

23 Q. So Exhibit 68 is a July 18, 2019 e-mail from  
24 Mr. Garlinghouse to you, responding to a July 17 e-mail  
06:17 25 from you to him, where you talk about an issue with

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06:17 1 Xpring that you're working on that you wanted to make  
2 sure he was aware of. Then, you say:  
3 "There's a narrative going around on Twitter and  
4 some forums feeding into the narrative we're trying turn  
06:17 5 our XRP into USD as soon as possible and Xpring is a  
6 related attempt to diversify its exposure to other  
7 cryptocurrency projects because we fear/expect/cause XRP  
8 underperforming other cryptocurrencies and this  
9 narrative is very harmful to us and untrue."

06:18 10 A. Yes.

11 Q. Why did you view this narrative as harmful?

12 A. Because -- because the -- the reality is the  
13 opposite.

14 Q. You say, "This narrative is very harmful to  
06:18 15 us and untrue."

16 Was there another reason, other than it being  
17 untrue, why the narrative was harmful?

18 A. I mean, just generally, anyone who  
19 describe -- who says that we're doing something for  
06:18 20 purposes completely different from what we say we're  
21 doing creates a reputational risk and perception of  
22 dishonesty, and it just -- it just is not -- it's not  
23 something anyone should be doing.

24 Q. So --

06:19 25 A. It would be saying we're doing one thing

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06:19 1 while we were doing something completely different.

2 Q. So, for example, it's not true that xPring  
3 was an attempt to regulate and diversify its exposure  
4 from other cryptocurrencies?

06:19 5 A. It -- it had the effect of doing that.

6 But that was not an objective, and we certainly  
7 didn't do that because we feared, expected, or caused  
8 XRP to underperform other cryptocurrencies.

9 Q. Was one of the purposes of the Xpring  
06:19 10 initiative to potentially incentivize the development of  
11 other uses for XRP?

12 A. Yes.

13 Q. And did the Xpring initiative utilize XRP in  
14 any way to provide these incentives?

06:19 15 A. I'm not sure what you mean by -- you mean  
16 prior to these incentives?

17 Q. No, no. So did --

18 For example, did Ripple incentivize -- did Ripple  
19 fund companies -- you know, utilizing XRP?

06:19 20 A. Yes.

21 Q. As a part of the Xpring initiative?

22 A. Yes.

23 Q. Did Ripple permit these companies to sell  
24 their own XRP to obtain funds for their -- you know,  
06:20 25 endeavors?

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06:20 1 A. I don't -- I don't know that we prohibited  
2 them from doing so.

3 Q. Was Ripple aware that the companies might be  
4 selling the XRP to fund their endeavors?

06:20 5 A. I would have to speculate.

6  
7 (Thereupon, an e-mail chain with top  
8 e-mail dated 3/31/2020 from David Schwartz to  
9 Brad Garlinghouse was introduced as DS Exhibit  
06:20 10 69 for identification.)

11 BY MR. TENREIRO:

12 Q. Okay. Exhibit 69.

13 A. Yes.

14 Q. What is this e-mail from March 2020 referring  
06:20 15 to?

16 A. This is an e-mail -- well, there's several  
17 different e-mails here, but the trigger -- the beginning  
18 of all of this was an e-mail from [REDACTED] to  
19 Brad Garlinghouse.

06:21 20 Q. And could you -- who is [REDACTED]?

21 A. [REDACTED] is a developer who develops  
22 on the XRP Ledger. He has a company called [REDACTED]

23 [REDACTED]

24 Q. Okay. Is it fair to say, essentially,  
06:21 25 that -- I mean, the title -- the subject is "Xpring is a

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06:21 1 Disaster"?

2 A. Yeah.

3 Q. Okay, so I don't want to spend too much time  
4 on his e-mail. I'm more interested in your response,  
06:21 5 but he's expressing sort of negative views about the  
6 Xpring initiative?

7 A. Yes.

8 Q. And what was your response?

9 A. My response was twofold.  
06:21 10 First, that I think he's being a bit hyperbolic and  
11 just -- he's angry, but I think the other part is that  
12 there is -- there is some nugget of truth in the  
13 criticism.

14 Q. What was a nugget of truth?

06:21 15 A. The nugget of truth was that we weren't  
16 communicating well what the -- we weren't doing a good  
17 job of communicating to people like [REDACTED] what  
18 the -- what the purpose of the Xpring project was.

19 Q. Does that include communicating to the market  
06:22 20 generally?

21 A. It includes communicating to the public  
22 generally. We didn't have any specific way to  
23 communicate with developers other than communicating  
24 with the public.

06:22 25 (Thereupon, a 33-page printout entitled

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06:22 1 "Insiders Dumpling? - Page 6 - XRP Trading and  
2 Price Speculation - Xrp Chat" was introduced as  
3 DS Exhibit 37 for identification.)

4 MR. TENREIRO: Let's look at Exhibit 37,  
06:22 5 please.

6 MR. CERESNEY: Are we done with this one?

7 MR. TENREIRO: Yeah.

8 MR. CERESNEY: What page?

9 BY MR. TENREIRO:

06:22 10 Q. Exhibit 37, page 9 and 12.

11 A. Yes.

12 Q. It seems like you said on May 25, 2017:

13 "Christian didn't leave. He's still pretty much in  
14 the office every day."

06:23 15 Is that referring to Mr. Larsen?

16 A. Yes.

17 Q. Is this after he stepped down as CEO?

18 A. Yes.

19 Q. And is this consistent with your recollection  
06:23 20 that you still reported to him after he stepped down as  
21 CEO?

22 A. Yes.

23 Q. Is that also true he was focusing more on the  
24 strategic things and not running the company's  
06:23 25 day-to-day operations at that point?

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06:23 1 A. Yes.

2 Q. On page 12, you seem to say at the end:

3 "Chris Larsen resigned his position as CEO. He's  
4 still a board member and almost as active as ever."

06:23 5 Do you see that?

6 A. Yes.

7 Q. Was that true at that time?

8 A. Yes.

9 Q. Did that change at some time?

06:23 10 A. Yes.

11 Q. When?

12 A. Gradually, over a period of time probably  
13 beginning sometime in 2018, he stopped -- he stopped  
14 like showing up every day, and it --

06:24 15 He started -- he shows up as a board member at  
16 board meetings, but his day-to-day responsibility was  
17 dropped.

18 Q. Who decided that?

19 A. I assume he did, but I don't know.

06:24 20 MR. GERTZMAN: Objection to the --

21 BY MR. TENREIRO:

22 Q. Do you know why that was decided?

23 A. No.

24 MR. CERESNEY: Objection.

25

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06:24 1 BY MR. TENREIRO:

2 Q. Sorry? Was the answer "no"?

3 A. No, I don't know.

4 Q. So is it fair to say that after he resigned  
06:24 5 as CEO, there was a period where he was still going to  
6 the office every day?

7 A. Yes.

8 Q. Let me -- I'm almost finished.

9 I think we're going to do -- go way back in time.  
06:24 10 Something I forgot earlier, Exhibit 75.

11 (Thereupon, a nine-page document entitled  
12 Opencoin Features Overview" bearing Bates Nos.  
13 DS\_RPLI0002158 through DS\_RPLI0002166 was  
14 introduced as DS Exhibit 75 for identification.)

06:25 15 BY MR. TENREIRO:

16 Q. Let me know if you recognize this document.

17 A. I know now that this is a document that  
18 [REDACTED] sent me a copy of back in 2012, I believe.

19 Q. What do you mean, you "know now"?

06:25 20 A. I don't -- I don't have a recollection of  
21 seeing it at that time, but I've been shown this  
22 document recently.

23 Q. Okay.

24 MR. CERESNEY: Just to be clear, you've  
06:25 25 been shown it in preparation?

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06:25 1 THE WITNESS: Yes.

2 BY MR. TENREIRO:

3 Q. You just don't have a recollection of whether  
4 you got it back then or not?

06:25 5 A. Right.

6 Q. Your recollection is that [REDACTED] prepared  
7 it?

8 A. My recollection from seeing the document  
9 in -- in context is that Mr. -- [REDACTED] sent me a  
06:25 10 copy of it. I don't know that he prepared it.

11 Q. And do you know for what purpose it was  
12 prepared?

13 A. I don't.

14 Q. Do you know when it was shared with anyone  
06:26 15 outside of the company or the founders of the company?

16 A. I believe that [REDACTED] shared it with  
17 someone who I considered potentially involving them or  
18 the company in some way.

19 Q. Like an investor?

06:26 20 A. It might have been. Could have been a  
21 potential employee. I don't recall.

22 Q. On the second page, it says "OpenCoin versus  
23 Bitcoin." Do you see that?

24 A. Yes.

06:26 25 Q. And at the bottom, it says:

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06:26 1 "Dedicated Team: This is probably our most  
2 important advantage. Bitcoin is an open source project  
3 without anyone leading it.

4 "OpenCoin, while also open source, will have a  
06:26 5 potential team of developers and businesspeople behind  
6 it." Do you see that?

7 A. Yes.

8 Q. Was that accurate back in 2012?

9 A. That we did or that we would?

06:26 10 Q. Well --

11 A. This is -- this is a prediction of the  
12 future.

13 Q. Did that turn out to be correct, that  
14 OpenCoin had a professional team of developers behind  
06:27 15 it?

16 A. Depends what ... it's difficult to say,  
17 because it's not really clear what it is here, and at  
18 the time --

19 I think at the time this was drafted, there wasn't  
06:27 20 a good understanding of what the role of the company  
21 would be versus what the role of the -- the ledger would  
22 be.

23 (Thereupon, an eight-page document  
24 entitled "David "JoelKatz" Schwartz u/sjoelkatz)  
06:27 25 - Reddit" dated 7/3/18 was introduced as DS

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06:27 1 Exhibit 71 for identification.)

2 BY MR. TENREIRO:

3 Q. Let's look at Exhibit 71, please.

4 This is a calculation of posts, but I'm going to  
06:28 5 focus on the first one.

6 A. Okay.

7 Q. You say:

8 "I will use the analogy of Google again. If Ripple  
9 were Google, XRP would be the search engine and the  
06:28 10 Internet would be Ripple's payment technology."

11 Do you see that?

12 A. Yes.

13 Q. Why are you making this analogy?

14 A. Do you have the date of this document?

06:28 15 Q. I think it's 2017. That's my best guess.

16 (Pause.)

17 MR. TENREIRO: Jon, do you know?

18 MR. DANIELS: Hold on.

19 (Thereupon, an informal discussion was  
06:28 20 held off the record.)

21 THE WITNESS: It would help to see what  
22 I'm responding to, but I imagine it was some  
23 confusion between what Ripple is and what I  
24 said it is.

25

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06:29 1 BY MR. TENREIRO:

2 Q. Well, do you think that when people talk  
3 about the Google search engine, they associate that with  
4 Google or with something else?

06:29 5 MR. CERESNEY: Objection.

6 THE WITNESS: I don't know that it's a  
7 great -- I mean, I was using that example to  
8 illustrate a different point.

9 BY MR. TENREIRO:

06:29 10 Q. What point were you illustrating?

11 A. The point that I'm illustrating is that the  
12 more -- the more value there is in the cryptocurrency  
13 and the XRP ecosystem, the more value ... wait. I'm  
14 trying to understand the point I'm making. Hold on a  
06:29 15 second.

16 (Pause.)

17 THE WITNESS: Yeah, I actually do see.  
18 it's a terrible analogy and I'm glad I  
19 clarified it in the third paragraph, or I  
06:30 20 wouldn't know what I meant.

21 What I'm saying is that Ripple -- Ripple,  
22 like other participants in the cryptocurrency  
23 ecosystem, can contribute to technologies like  
24 the XRP Ledger and in a ledger, even though  
06:30 25 they don't have a direct revenue model.

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06:30 1                   Because they -- because they expect to  
2                   participate in an ecosystem that has the  
3                   ability to make them money, just like Google  
4                   helps to build the Internet.

06:30 5                   Even though Google can't directly  
6                   monetize the Internet, everything Google's  
7                   doing works better if the Internet is better.

8 BY MR. TENREIRO:

9           Q.       Google monetizes its search engine?

06:31 10           A.       Google -- the -- Google's search engine is  
11           the way it monetizes the Internet.

12           Q.       So is XRP the way Ripple monetizes the -- you  
13           know, Interledger?

14                   MR. CERESNEY:  Objection.

06:31 15           THE WITNESS:  And that's why this analogy  
16           is bad.  I -- I think I'm trying to say the  
17           reverse.

18 BY MR. TENREIRO:

19           Q.       Let's move on.

06:31 20           A.       This -- this is a terrible --

21           Q.       I'm sorry.

22           A.       It's terribly worded.  I mean, it's one  
23           document, but this is really poorly worded.

24                   MR. CERESNEY:  You don't have to  
06:31 25           apologize.

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06:31 1 (Thereupon, an informal discussion was  
2 held off the record.)  
3 BY MR. TENREIRO:  
4 Q. So is it a way, then, to monetize the ledger?  
06:31 5 Is that what you're saying?  
6 A. Yeah. What I'm --  
7 What I'm trying to say is that if the  
8 cryptocurrency ecosystem is healthier -- and the XRP  
9 Ledger specifically -- that creates an opportunity for  
06:31 10 companies like Ripple to build products and services  
11 that can make money.  
12 Just like a healthier Internet allows Google and  
13 its competitors to build better -- have more useful  
14 search engines and therefore have better revenue. I  
06:32 15 think that's what I was trying to say there, but it's so  
16 badly worded I can't be sure.  
17 MR. TENREIRO: Before we finish, just  
18 again on Exhibit 82, I would like to ask what  
19 the basis for the assertion for privilege is.  
06:32 20 MR. CERESNEY: Which is Exhibit 82?  
21 MR. TENREIRO: The one you clawed back  
22 today.  
23 MR. CERESNEY: It's advice provided by an  
24 attorney. It's actually a question asked by  
06:32 25 an attorney of Mr. Schwartz in connection with

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06:32 1 something the attorney was working on.

2 MR. TENREIRO: Okay. Are you going to  
3 tell us what the legal advice is as to?

4 MR. CERESNEY: Well, it's a comment, not  
06:32 5 a document. It's a question about a document  
6 asked by an attorney of Mr. Schwartz, and in  
7 the context of that, it talks about a point  
8 that they have discussed -- that attorney and  
9 Mr. Schwartz have discussed.

06:32 10 Therefore, it was -- it reflects a  
11 conversation between the attorney and Mr.  
12 Schwartz and relates to a comment that the  
13 attorney had on the document.

14 (Thereupon, a 31-page document entitled  
06:32 15 "Master Press Q&A" was introduced as DS Exhibit  
16 83 for identification.)

17 BY MR. TENREIRO:

18 Q. Exhibit 83. Here are copies. Last set of  
19 questions.

06:33 20 (Thereupon, a 10-page entitled "Make XRP  
21 Great" was introduced as DS Exhibit 84 for  
22 identification.)

23 BY MR. TENREIRO:

24 Q. I'm just going to ask a couple brief  
06:33 25 questions about Exhibit 83 and Exhibit 84. Do you

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06:33 1 recognize what Exhibit 83 is?

2 A. I think so.

3 Q. What is it?

4 A. I believe this is a document Ripple provides  
06:33 5 to employees to help them -- you know what? I'm not --  
6 I'm not sure.

7 Q. Have you ever seen this before?

8 A. I think I've seen a similar document, but I'm  
9 not sure this is that document.

06:33 10 Q. So --

11 A. This looks more detailed than the document  
12 that I've seen.

13 Q. A similar document about "Press Q&A Points"?

14 A. A similar document in that it has a list of  
06:33 15 general questions that people might ask about XRP, the  
16 XRP Ledger, or Ripple with like suggested answers.

17 Q. People such as reporters, or what? Or market  
18 participants?

19 A. The document that I saw was mostly intended  
06:33 20 for employees to answer questions that they would  
21 encounter.

22 This document looks for detailed than that, and I  
23 don't know who it was intended for.

24 Q. Who would the employees encounter questions  
06:34 25 from?

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06:34 1 A. The general public.

2 Q. Anybody, right?

3 And Ripple was suggesting how employees should  
4 respond to those questions?

06:34 5 A. Yes.

6 MR. CERESNEY: Just to be clear, you're  
7 not sure this is that document?

8 THE WITNESS: This document looks bigger  
9 and more detailed than that, so I don't know  
06:34 10 that this is ...

11 BY MR. TENREIRO:

12 Q. Let's move on to Exhibit 84.

13 A. But it says:

14 "Please read the corporate narrative and fast  
06:34 15 facts," so it seems like it's -- but I don't know.

16 Q. Can you please identify Exhibit 84 after  
17 you've had a chance to look at it?

18 (Pause.)

19 THE WITNESS: What was your question?

06:35 20 BY MR. TENREIRO:

21 Q. Yes. What is this document?

22 A. This looks like a document suggesting radical  
23 changes in the way Ripple operates.

24 Q. Who prepared it?

06:35 25 A. I don't know.

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06:35 1 Q. Were you involved?

2 A. No. At least, not to my recollection.

3 Q. On page 3 -- sorry.

4 On page -- it looks like page 7, think. At the

06:35 5 front, it says "RPLI\_SEC 576405." There's Comment 16.

6 A. Yes.

7 Q. "Thumbs up to David's comment"?

8 A. So I must have commented somewhere.

9 Q. "David: Currently, banks -- at least the

06:35 10 ones we are talking to -- do not route liquidity through

11 exchanges," etc.

12 A. Yes.

13 Q. What was the purpose of this document?

14 A. So this is -- this is --

06:35 15 I believe what's happened here is this document --

16 which I believe is, at least to some extent, a document

17 that I wrote or commented on -- has been imported into

18 this other document.

19 Q. What was the purpose of it?

06:36 20 A. The purpose?

21 Q. At the beginning, it says "Make XRP Great

22 Again." That's the title.

23 A. Well, the person who imported it to that

24 document --

06:36 25 That was their title, but my title was "Why Should

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06:36 1 We Care About XRP Right Now?" They imported my document  
2 into their document, I believe.

3 Q. To the extent you mentioned the document was  
4 suggesting radical changes in Ripple's strategy, why was  
06:36 5 that being suggested?

6 MR. CERESNEY: Do we know what time  
7 period this is?

8 MR. TENREIRO: I believe, if you look at  
9 the front page in the abstract, "While XRP has  
06:36 10 been in existence for over four years," that  
11 should give you a sense, more or less. Four  
12 years? Seems like 2017, 2016.

13 THE WITNESS: I mean, this looks like a  
14 position of someone who was critical of our  
06:36 15 current strategy and was suggesting  
16 significant changes to that strategy.

17 BY MR. TENREIRO:

18 Q. Strategy as to XRP?

19 A. Yes, and more -- and more broadly, but it  
06:36 20 seems to be primarily focused on Ripple's strategy as to  
21 XRP.

22 MR. TENREIRO: Okay. I'm out of time.

23 THE VIDEOGRAPHER: Okay. This concludes  
24 the video deposition --

06:37 25 (Inaudible crosstalk.)

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06:37 1 THE VIDEOGRAPHER: Sorry.  
2 MR. CERESNEY: Go off the record.  
3 THE VIDEOGRAPHER: Going off the record  
4 at 6:37.  
06:37 5 (Recess taken at 6:37 p.m.)  
6 (Resumed at 6:50 p.m.)  
7 THE VIDEOGRAPHER: Back on the record at  
8 6:50.  
9 MR. CERESNEY: Great. I have a few  
06:50 10 questions, Mr. Schwartz.  
11  
12 CROSS-EXAMINATION  
13 BY MR. CERESNEY:  
14  
06:51 15 Q. I want to hand you all of the exhibits, just  
16 a pile of the exhibits that Mr. Tenreiro showed you  
17 today. I don't know how many it was, but it was maybe  
18 50, 60 exhibits or so.  
19 Just take a look at those and tell me how many  
06:51 20 social media posts have you had over the course of the  
21 last nine years relating to Ripple or XRP.  
22 A. Probably tens of thousands.  
23 Q. Do these exhibits that Mr. Tenreiro showed  
24 you today -- do they constitute, essentially, a very  
06:51 25 small percentage of your total posts?

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06:51 1 MR. TENREIRO: Object to form.

2 THE WITNESS: They do.

3 BY MR. CERESNEY:

4 Q. And in some of the posts that Mr. Tenreiro  
06:51 5 showed you and when he questioned you, were there other  
6 aspects of those posts that he did not read?

7 A. Yes.

8 Q. And in some of those posts, did you say  
9 things that in some respects rebutted some of the pieces  
06:52 10 of the posts that Mr. Tenreiro showed you?

11 MR. TENREIRO: Again, object to form.

12 Leading your witness.

13 THE WITNESS: Yes.

14 BY MR. CERESNEY:

06:52 15 Q. Now, have you in any of your posts over the  
16 years made promises to XRP holders that Ripple would  
17 take actions to increase the price of XRP?

18 MR. TENREIRO: Object to form.

19 THE WITNESS: I do not believe today that  
06:52 20 I ever did so.

21 BY MR. CERESNEY:

22 Q. And did you ever make promises to holders of  
23 XRP or give them assurances that the price of XRP would  
24 rise to a certain level?

06:52 25 A. I do not believe I ever did so.

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06:52 1 Q. In your posts, were you touting that Ripple's  
2 actions could increase the price of XRP?

3 A. No.

4 Q. Was that your purpose in any of your posts?

06:53 5 A. No.

6 Q. What, generally, was the purpose of your  
7 posts overall?

8 A. The general purpose of my posts were to  
9 communicate with the world what -- what I was working  
06:53 10 on, on the XRP Ledger and at Ripple.

11 Q. And did it essentially --

12 MR. CERESNEY: Strike that. No further  
13 questions. That's it.

14 MR. TENREIRO: Do any of the individuals  
06:53 15 want to ask questions?

16 (Thereupon, an informal discussion was  
17 held off the record.)

18 MR. GERTZMAN: Nothing on behalf of  
19 Mr. Larsen. Thank you.

06:53 20 MR. TENREIRO: Okay, and again, I  
21 understand obviously we don't agree.

22 But we do want to state again we reserve  
23 our rights to bring him back, especially since  
24 we only covered 60 out of thousands of posts.

06:53 25 MR. CERESNEY: Well, you apparently

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06:53 1 covered, I assume, what you thought were the  
2 most important and you took your seven hours,  
3 so of course we will object to that.

4 MR. TENREIRO: Thank you, Mr. Schwartz.

06:53 5 THE VIDEOGRAPHER: Going off the record.  
6 This is the end of the video deposition of  
7 David Schwartz. Going off the record at 6:53.  
8 (Thereupon, the deposition adjourned at  
9 6:53 p.m.)

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ACKNOWLEDGMENT OF WITNESS

I, DAVID SCHWARTZ, do hereby certify  
that the foregoing testimony given by me on  
May 26, 2021 is true and accurate, including  
any corrections noted on the corrections page,  
to the best of my knowledge and belief.

\_\_\_\_\_  
DAVID SCHWARTZ

At \_\_\_\_\_ in said County  
of \_\_\_\_\_, this \_\_\_\_\_ day  
of \_\_\_\_\_, \_\_\_\_\_, personally  
appeared DAVID SCHWARTZ, and he made an oath to the  
truth of the foregoing corrections by him subscribed.

Before me, \_\_\_\_\_, Notary  
Public. My commission expires \_\_\_\_\_.

1 STATE OF NEW YORK )  
2 COUNTY OF NEW YORK ) ss:

3  
4 C E R T I F I C A T E

5 I, CHERYLL KERR, CSR, a Notary Public  
6 within and for the State of New York and a Certified  
7 Shorthand Reporter, do hereby certify that the witness  
8 whose deposition is hereinbefore set forth, was duly  
9 sworn by me and that such deposition is a true record of  
10 the testimony given by such witness.

11 I further certify that I am not related to  
12 any of the parties to this action by blood or  
13 marriage and that I am in no way interested in  
14 the outcome of this matter.

15 IN WITNESS WHEREOF, I have hereunto set my  
16 hand this 28th day of May, 2021.

17  
18   
19 -----  
20 CHERYLL KERR, CSR  
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25

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1 ERRATA SHEET FOR THE TRANSCRIPT OF:

2 Case Name: SEC v. Ripple Labs, et al.

3 Dep. Date: May 26, 2021

4 Deponent: David Schwartz

5 Reason codes:

6 1. To clarify the record.

7 2. To conform to the facts.

8 3. To correct transcription errors.

9 Pg.	Ln.	Now Reads	Should Read	Reason
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19 \_\_\_\_\_  
Signature of Deponent

20

21 SUBSCRIBED AND SWORN BEFORE ME

22 THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2021.

23 \_\_\_\_\_

24 (Notary Public) My Commission Expires: \_\_\_\_\_

25